

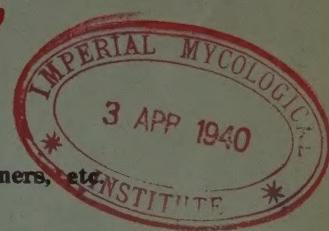
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Vol. XLI. No. 2

FEBRUARY 5th, 1940

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Feature Articles

in this

Issue

- Australian Apple and Pear Board
- Apple Tree Pruning
- Co-Operative Marketing
- Vegetable Culture
- Canned, Dried and Citrus Fruits
- Interstate News and Notes
- Motor Cars, Trucks and Tractors
- Pig and Poultry Notes

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The Pig Pen

Cereal Food for Pigs

Replies recently supplied by Mr. W. J. Spafford (S. Aust. Director of Agriculture) to questions from the Kilroo branch of the Agricultural Bureau in reference to cereal foods for pigs were:

1. "What is the value of oats compared with wheat for pig feed?"

It is quite impossible to answer this question as the foodstuffs are not strictly comparable as pig feeds. Wheat is a first class pig feeding grain, whilst oats contain considerably too much fibre. Oats can be given to "dry" sows with advantage, but for sows with litters, or for pigs being fattened for market, oats should only form a small part of any ration. The fattening value for animals other than pigs of oats compared to wheat, is in the proportion of about 5 is to 6; that is to say, that 6 lbs. of oats will equal 5 lbs. of wheat, but as a producer of milk and energy or in promoting healthy growth, oats

have about equal value with wheat pound for pound.

2. "What is the value of oats compared with barley for pig feed?"

Barley is a very suitable food-stuff for pigs, whilst oats are not. The fattening value for animals other than pigs of oats compared to barley is in the proportion of about 6 to 7.

3. "What is the value of rye compared with wheat for pig feed?"

Rye and wheat have just about equal value, pound for pound, as pig feed.

4. "What is the value of rye compared with barley for pig feed?"

10 lbs. of barley is about equal to 9 lbs. of rye for fattening pigs.

5. "How many lbs. of oats would be required to be fed to a pig to increase its weight as much as a bushel of wheat?"

Oats are only fed as the sole grain being given to pigs in cases of emergency, and no data

is available as to the number of pounds of oats necessary to lead to 1 lb. of increased weight in the animals being so fed.

6. "At what age does a sow become infertile and too old to breed from?"

Like all animals, some individual pigs retain their fertility to very great ages, but although still fertile, very few sows re-

tain the power of producing strong litters frequently enough to be highly economic, and to rear the youngsters sufficiently well after they reach the age of 5 or 6 years. In commercial pig keeping the requirements are big litters of strong youngsters which develop quickly, and few old sows retain the power of doing this.

FEEDING THE PIGS.

Clean feeding places are essential for all pigs, and especially for weaners and slips. A concrete feeding platform is ideal and inexpensive.

Although wooden platforms are good, the objection to them is that they become very evil smelling underneath unless there is complete drainage, and they are not so permanent as is concrete.

However, anything is better than feeding the pigs from troughs placed on bare earth, which quickly becomes muddy and unsanitary.

There is always a danger with milk fed straight from the separator that it will cause some cases of protruding bowels (prolapse of the rectum). This is avoided if the milk is allowed to curdle before feeding out.

It is caused by a combination of circumstances but the main factors are constipation, combined with the gasses which form in the pig's stomach following feeding with fresh milk. This is particularly so in the early Spring, when there is always a certain amount of colostrum in the milk.

Occasionally it may be caused by weakness, due to excessive scouring, but almost invariably it is the strongest and best pigs which are affected.

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News of the Month

Apples and Pears.

Much consideration was given last month to the alternative proposals which had been put forward in relation to the handling of the 1940 crops of Apples and Pears. The Apple and Pear Board met during the latter part of the month, and it appears that after exhaustive examination the original acquisition proposals will operate.

There can be no disputing the fact that the Board is facing a task of great magnitude. The circumstances are quite unique, but it is quite certain that a most earnest endeavour is being made to solve the problems. The ideal aimed at is not only to successfully handle this season's excess crops, but in so doing to return a dividend to the growers from the pool.

Allowing, however, for the problems arising out of the fact that it is quite a new enterprise—that of exercising control over local distribution—for the upsetting of many long-established usages of trade, and for the possibility of human error, there are other factors which might profitably be borne in mind.

First there is the point as to standardisation.

There is an old saying in business that the "customer is always right." Can it be said that the Apple industry has a contented public, or are the complaints as to lack of quality and standards justifiable?

It is generally admitted that the Californian Fruitgrowers Exchange, with its "Sunkist" Oranges, is one of the most successful of its kind in the world. Yet the industry was in a sorry plight before organisation was attempted—and the first step was to standardise—to obtain the goodwill of the customer.

It will be interesting to see the reaction of the public to standardised Apples, when the people can buy and buy again with confidence.

Every effort will be made to develop new avenues of trade, also to turn the surplus into by-products.

Then there is the matter of publicity. A campaign is planned on comprehensive lines to move the crop speedily into consumption. As a result the people should know more in future of the value of this fruit, and should become more familiar with varieties.

We find ourselves repeating the well-known slogan—Organise, Standardise, Advertise.

:P :P :P :P

Pears will also be included in the market development and publicity plans.

It is understood that in the marketing and advertising plans due regard will be observed with reference to the citrus industry, recognising the need for the Orange growers to advertise in the flush of their season.

PERSONAL

Mr. H. R. Powell, who was previously second to Mr. G. W. Wickens in the W.A. Department of Agriculture, was recently appointed Superintendent of Horticulture. Mr. Powell is highly esteemed, and the work of the Department should prosper under his guidance.

The services of **Mr. G. W. Wickens** are not to be lost to the industry, for on the day following his retirement from the Department he joined up with the Westralian Farmers Ltd.

Mr. G. A. W. Pope has been appointed by the S. Aust. Government as Chairman of the Transport Control Board. Mr. Pope is a familiar figure in South Australian commercial and administrative circles and is widely esteemed. His activities

PERSONAL - (Continued)

include his long service with the S. Aust. Government Produce Department; he is also a member of the S. Aust. Dried Fruits Board, the Australian Apple and Pear Board, and is associated with other activities.

Mr. N. C. Harris has been appointed as Chairman of the Victorian Railways Commissioners, in succession to Mr. H. Clapp. Mr. Harris has been a Commissioner since 1933. The Premier, in making the announcement, said Mr. Harris's salary would be £3,000 a year. Mr. Clapp had received £3,500. Mr. Harris, who is 53 years of age, was educated at Scotch College, Melbourne, where he became dux of the school, and specialised in mathematics and science. He completed his studies at the McGill University, Canada, and secured a Master of Science degree. After experience with hydro-electric power production in Tasmania he joined the engineering section of the Victorian Railways in 1912. He served with the Australian Engineers in the Great War, and was awarded the D.S.O. and M.C. In 1928 he was appointed chief mechanical engineer, and Commissioner in 1933.

Mr. H. S. Hunter, formerly Senior Clerk, Marketing Branch, Department of Agriculture and Stock, has recently been appointed Director of Marketing, Brisbane. Mr. L. Cain, Mr. M. L. Cameron, and Mr. E. S. Keehn have been promoted.

Mr. H. Turner, a representative in London of N.Z. fruit interests, returned to the Dominion recently, and left again during January for London via U.S.A. and Canada.

VICTORIA.

Tomato Growers Organise.

Activity at Shepparton.

A Tomato Growers' Association has been formed at Shepparton, Vic., with office-bearers as follows:—President, Mr. L. Pither; Vice-President, Mr. R. Lees; Secretary, Mr. A. T. Goyen; Committee, Cr. W. J. Tregaskis, Messrs. W. A. Galt, E. Daws, R. Thorne, J. Ishmael, and L. Tamburro.

It is estimated that the area under Tomatoes around Shepparton and Kialla is about 2,000 acres.

It is desired to form Tomato Growers' Associations at Bendigo, Echuca, Portland, and other important producing centres.

One objective is to arrange a fixed minimum price from factories.

Letters to the Editor

ALIEN PRODUCERS.

To the Editor, "Fruit World." Sir,

Wherever fruitgrowers foregather, a discussion soon ensues on the subject of foreign immigrants. Reference is usually made to Southern Europeans, and the dominating influence they now exert in sugar production in Queensland, Banana growing in N.S.W., fruitgrowing generally in the Murrumbidgee Irrigation Areas and the Goulburn Valley in Victoria, as well as on the dried fruit blocks of Mildura and the Murray River Areas.

Further, with regard to vegetable production, these Southern Europeans seem to be taking control in N.S.W. and Victoria, and it would appear that the same influence is present in relation to distribution.

The Returned Soldiers' Association has directed attention to this subject, from time to time. The question has been seriously raised. Do these people conform to our living standards, or rather the labor and working conditions as prescribed by Acts of Parliament? The infiltration is real, and all the more dangerous because it is insidious. The time would appear to be overdue for an authorised commission to enquire into the whole matter.

Yours, etc.,

DIGGER.

Merbein, Vic., 20/1/40.

Potash for Dipping Sultanas.

The Editor,
"The Fruit World."

Sir,—I notice in your South Australia Mid-Murray notes in the January issue a paragraph regarding the scarcity of potash carbonate, needed for cold dipping Sultanas.

The paragraph states that Germany has the only supplies, and while this is possibly true regarding mineral sources, I have always understood that in the lumber districts of Canada and the U.S.A., large quantities are made from wood ashes, the qualities being known as potash (crude) and Pearlash (the purified alkali).

In Spain and Turkey I also understand that the Grape growers make their dips from the ashes of their prunings, while in wine-making countries, the refuse from the wine is used, the material being dried out and burnt, and the ashes washed to extract the alkali.

It would seem that war conditions may force the dried fruit industry to produce potash from the waste of the industry, thus avoiding the necessity (even in peace times) of the importations of the chemical.

Yours, etc.,
"S.A. Storekeepers' and Grocers' Journal,"
W. A. ROBJOHNS,
Managing Editor.

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	NEPTUNE SPRAY SPREADER



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(INCORPORATED IN N.S.W.) ALL STATES

N. 504

Australian Apple and Pear Board

Acquisition Proposals Now Well Advanced

THE FIRST ANNUAL REPORT of the Australian Apple and Pear Board to June 30, 1939, is a formal document, setting out the constitution and membership of the Board, the system of finance and the results of the Empire Fruits Council at London.

In an accompanying statement, dated November 15, 1939, the Minister for Commerce (Senator G. McLeay) states that whereas the Board was constituted on May 12, 1939, and had commenced arrangements for regulating the export of Apples and Pears, this work had been put aside; meantime the Government had been glad to take advantage of the appointment of the Board to consult it regarding action to be taken under war-time conditions.

Apple and Pear Acquisition.

A meeting of the Apple and Pear Board was held at Melbourne at the end of January, Mr. J. B. Mills presiding.

Details relative to the handling of the crops, varietal pools, publicity, etc., were dealt with.

Alternative proposals from the Orange (N.S.W.) Producers Co-op. Society for handling the surplus over Australia's normal requirements were carefully considered. It was decided to adhere, however, in broad terms, to the original acquisition proposals.

It was decided to conduct a vigorous publicity campaign, utilising the press and radio, and concentrating on educational publicity such as distribution of Apples to schools, hospitals, kindergartens, creches, etc.

Opportunity will be provided for groups of citizens to "adopt" certain schools, hospitals, etc., for the supplying of Apples regularly.

The idea is to work in close harmony with the retail trade and to push the case trade as much as possible.

Meetings of Growers.

At a Conference of fruit-growers at Sydney on January 18, delegates from Orange strongly criticised the Acquisition proposals and urged that Government finance be directed to taking care of the estimated surplus of 3,000,000 cases of Apples, thus allowing trade to flow on as usual in handling the normal crop.

Mr. R. A. Jackes (Armidale) spoke in support, stating that most of the New England Apples were sold privately.

Mr. H. V. Smith thought there was no chance of the amended plan being adopted. He favored full appraisement of values of specific varieties. This

was supported by Mr. E. Ray (Bathurst).

It was decided to send a deputation to the Prime Minister.

The delegation duly waited on the Prime Minister, who, after listening carefully to the proposals, promised to consult the Minister for Commerce.

There was a big meeting of growers at E. Burwood (Vic.) at the end of January, when the Acquisition Scheme was criticised, because of the proposed complete change over from the established system of marketing whereby growers have in the past sold their fruit in the Victoria Markets direct to retailers.

TASMANIAN PLANS

Mr. L. S. Taylor, Chairman of the Tasmanian State Acquisition Committee, stated in mid-January that in addition to the State Acquisition Committees a Central Marketing Committee had been appointed, with headquarters in Melbourne.

This Central Marketing Committee would be the controlling body and would direct the marketing of fruit whether intra-State, interstate, or overseas, and would handle all advances and proceeds.

It would not be possible, therefore, to continue the practice of interstate trading, either by individuals, firms, or growers.

The whole of the net proceeds of sales would be pooled by varieties—the net amount of sales of each variety would be credited to the pool for that particular variety.

"It must be clearly understood," Mr. Taylor continued, "that the basis of participation in any such pool profits will be on an assessment basis, rather than that of contribution. For instance, should a grower be assessed at 1,000 cases, on which he receives an advance of 2/- a case on 750, but of which he is only called on to market 500, his participation interest in the pool will be on the basis of 1,000. But if he is instructed to deliver and fails to do so because of shortage of fruit, or neglect of his orchard, or failure to care for the fruit in a proper manner, he shall only be entitled to participate to the extent of his deliveries. The final disbursement of the proceeds of pools obviously cannot be made until marketing is completed.

"Growers may do their own packing on behalf of the Committee and under their direction

Encouraging Statement by Mr. J. B. Mills

**Effective Australian Organisation
for Handling Apple and Pear Crops**

IN a statement issued on January 19, the Chairman of the Board (Mr. Mills) said that while some States will have only a moderate yield, the original production forecast for the Australian Apple and Pear crops is likely to be substantially exceeded.

He considered the chances of final pool distributions to growers were reasonably promising, even at this early stage.

The Acquisition Committees were satisfied that fair treatment would be experienced by all growers in the matter of crop estimates and appraisements.

Every effort was being made to secure maximum exports, although freights, insurance and charges had advanced by 3/- per case over 1939.

The organisation for marketing was fairly complete in most

States, and in readiness to assure a result to the producer much in excess of anything that could have been anticipated had the Commonwealth Government not intervened and made it possible for marketing regulation of all fruit to its most economical point of absorption.

Referring to the public co-operation afforded the industry, Mr. Mills indicated the actions of the dairy industry of N.S.W., and the Victorian dairy industry, in undertaking that their factory managers would act as distributors of fruit in case lots to their dairy farming clients, and arrange for delivery and payment. The Defence Department also was endeavouring to arrange supplies of Apples and Pears for the military camps throughout Australia, both as rations and for sale at canteens.

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Extract from "Better Fruit" (U.S.A.), Spraying and Pest Control Edition, February, 1937.

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By Arthur D. Borden, University of California.

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Picnic Point Nurseries, Bairnsdale, Vic.

AUSTRALIAN APPLE AND PEAR BOARD - Continued

without licence, but any grower or organisation desiring to pack for anyone but themselves—any fruit from any other orchard but their own—must be licensed.

Packing Costs Refunded.

"The costs of packing and delivery, whether to depot, ship's side, or cold store, will be paid on the basis of actual cost. There will also be an allowance for the cartage of loose fruit where the fruit has to be carted away from the orchard on which it has been grown. The amount will depend on the area in which the packing is done, the material used, and the delivery distance. If fruit is rejected for packing faults no payment of packing costs will be made and the licence may be withdrawn.

"Growers intending to pack their fruit and packing companies and community sheds should provide themselves with case timber for at least 60 to 75 per cent. of their normal output, and those packing houses which pack for growers who grow a large percentage of the more popular varieties, should equip themselves with proportionately more.

"The same applies to all packing requirements such as wrapping paper, strawboards, and nails, but in the case of these requisites, due regard must be paid to cold store lines such as Democrats, Croftons, Yates, Sturmers, and the like.

Complete Acquisition.

"Growers are reminded that the whole of the Apples and Pears grown in Australia will be acquired by the Commonwealth Government on March 1. and that growers will be responsible from the day their orchards are assessed for the care of the fruit they have grown until it has been delivered under instructions or they are relieved by the State Committee of their responsibilities.

"No Apples or Pears may be sold or given away or removed from the property without authority. Growers may use fruit from their orchard for purely domestic use, but this must be confined to their own household.

"Quantities of first-grade fruit will be available for re-

tailers (fruit shops and the like), and all retailers must obtain their supplies through authorised channels, and any fruit purchased through other channels is liable to confiscation and the purchaser or seller liable to prosecution.

By-Products.

"Ample supplies of Apples will be available for canneries, driers, and cider manufacturers, but all these supplies must be obtained through the State Committee or its agents. The price will be agreed on at the time of sale and will be in relation to the class of fruit supplied and to the sale possibilities of the processed goods."

Co-Operation of Growers Essential.

The Tasmanian Minister for Agriculture (Mr. D'Alton) stated that the co-operation of growers and their representatives is necessary to ensure that the assessment may be carried out as expeditiously and efficiently as possible, so that the information may be available to the State Committee to elaborate their plans for marketing.

... : : :

At a recent meeting of the Cygnet Council, Cr. T. Burnaby, a member of the Australian Apple and Pear Board, urged the importance of the full co-operation of growers. Provided orchardists played their part there was a distinct likelihood of returns exceeding the initial advances.

Many growers, continued Cr. Burnaby, had already assured him of their fullest co-operation. On the other hand, a few had not thinned their crops and some had even not ploughed. The Organising Committees were facing an enormous task, but were confident of success. The continued support of growers would be of wonderful assistance.

Tasmanian assessors have reported that the orthodox cultural programme is being conducted in most instances, and that cleanliness was generally apparent.

COMPARISON WITH NEW ZEALAND.

"Australian Scheme of Equal Merit."

An examination of the New Zealand proposals as compared with Australian was recently made by Mr. L. S. Taylor (Tasmania).

Under the N.Z. scheme prices have been arranged according to varieties and grade (extra fancy, fancy, and commercial). The highest price is 6/2 for extra fancy varieties in the first group, which includes Cox's, Granny Smith, and Cleo., and the prices range down to 4/10 for commercial grade. The second group includes Gravensteins, Jonathan, Delicious, R.B., Sturmer, and Rokewood, and prices range from 5/8 to 4/4.

Prices for other varieties are from 5/4 to 4/-. Prices quoted for Pears are from 5/10 to 5/2 in two groups for fancy grades, and 5/- to 4/4 for commercial grades.

The scheme will begin not later than February 1.

Mr. Taylor states that when the position was analysed the Australian grower would probably find himself as well off as his fellow producer in the Dominion. The finance made available by the Commonwealth Government for the Australian Apple and Pear Board, said Mr. Taylor, was not to be regarded as payment for the crop but for its production and marketing.

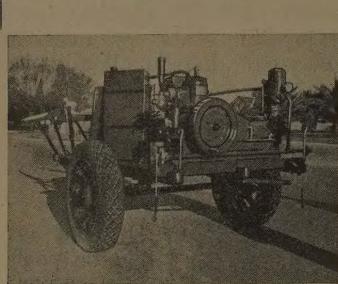
As well as receiving 2/- a bushel naked for 75 per cent. of his fruit, the Australian orchardist would then receive from the board approximately 2/3 a bushel for casing and delivery, making a total payment of 3/9 a case. This amount on the surface appeared to be 1/3 a case below the N.Z. average, but both producing and delivery costs were higher there. With the possibility of sharing in a dividend from the pool in addition to the original payment of 2/- a case, the Australian grower had no occasion to feel that fruitgrowers in N.Z. were placed in a more favorable position.

ONLY ONE INSPECTION DESIRED.

Efforts are being made to do away with the second inspection of Tasmanian fruit to the mainland. With effective inspection in Tasmania it is considered that the mainland inspection can be deleted, thus saving costs.

SOUTHERN TASMANIAN ASSESSORS.

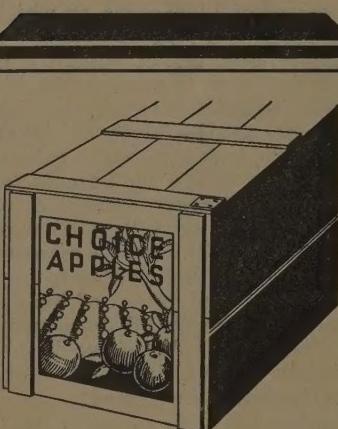
Those who are making assessments are: Huonville and districts, Messrs. W. J. Wright and W. G. Albury; Franklin, Messrs. A. S. Brennan and I. Short; Geeveston, Messrs. R. Chapman and L. K. Geeves; Cygnet, Messrs. S. Bratt and H. Rowe.



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Australian Apple and Pear Board - (Continued)

QUESTIONS ANSWERED.

Speaking at a largely attended meeting at Exeter, N. Tas., Mr. L. S. Taylor said it was hoped that the assessments would be complete by the end of February. Hail damaged fruit would be included in the assessment, and a report made by the assessors of the amount of damage.

Mr. H. Cash, a Department Assessor, said that Assessment Officers would confer with growers at the time of assessment.

In reply to a question, Mr. Taylor said that payment would not be made to growers for picking costs.

Progress in W.A.

THE Western Australian Apple and Pear Acquisition Committee has made considerable progress in its plans for handling the 1940 crops.

Country Trade.

The Committee is giving consideration to the licensing of growers who have established country trade which they desire to retain, but it may not be practicable to license growers to use fruit grown by them for sale at kerbstone markets and roadside stalls. Growers who wish to carry on that type of business will probably have to procure their supplies through licensed channels, which will be readily available.

Growers may use fruit for domestic purposes on their own properties and, where fruit has unavoidably become unsuitable for human consumption, growers may use it to feed their own stock on the property on which the fruit was grown. On no account, however, must growers permit removal of such fruit from their properties except with the authority of the Committee. It is proposed to license, under bond, persons who wish to buy fruit exclusively for stock feed.

The Committee desires to encourage the use of Apples and Pears for canning, dehydrating and production of juice, and invites inquiries from persons equipped to handle fruit for these purposes.

Export Standards.

It is not proposed to market any fruit of lower grade than

"fancy"; and export standards will be adopted for the local market. Varieties for which there are no export standards will be required to comply with standards similar to those of export varieties with a reasonable percentage of characteristic color.

Each grower will be allotted

A Registered Number which he will be required to brand on every box packed.

On no account must growers brand their names on boxes during the operation of the Acquisition Scheme.

Growers who already have registered export numbers will continue to use such numbers and all other growers will be notified of their allotted number as soon as possible. They must then arrange to procure stencils. The figures are to be not less than one inch high.

High Quality Production.

Reports have reached the Committee that an idea is becoming prevalent among growers that once their crops have been assessed, there is no obligation on them to give the fruit further attention. The Committee desires to correct that erroneous impression. There is a definite obligation on the part of every grower to work his orchard in accordance with usual practice and to protect the crop to permit of its preservation in the best possible condition. Failure to fulfil that obligation will render growers liable to penalties under the national security regulations and to refund any advances made.

Pear Acquisition in W.A.

Harvesting, Storage, and Marketing Procedure Defined.

THE W.A. Apple and Pear Acquisition Committee issued a statement in mid-January directing attention to the following Regulations governing the marketing of Pears (including Bartletts) after March 1, 1940.

All Pears are subject to Acquisition except such lots as can become the subject of sale for canning.

All crops will be assessed during January. Growers shall disclose on or immediately after March 1 the quantity of Pears they have disposed of between the actual date of their individual assessment and March 1. Growers will also be required to disclose all quantities picked and

on hand in cool storage, or otherwise, and also all quantities held on trees on March 1. The latter may be subject to re-assessment.

Advances will be paid on the basis of assessment quantities, less the quantity disposed of before March 1, but where at the time of assessment it has been noted that there is a likelihood of more than 50 per cent. of the crop being marketed before March 1, payment of the first advance will be deferred until March 1 to permit of adjustment.

No person will be permitted after March 1 to sell or dispose of any Pears, and no Pears picked before March 1 may be

held in cool storage on account of the grower or of the buyer after March 1.

The Acquisition Committee will arrange for payment at approved rates, for costs incurred in packing, transport and storage. Where the Pears on hand are not of adequate standard, the Committee reserves the right to refuse such payment and to deduct the quantity from the original assessment.

Pears for local sale or for storage after March 1 must only be packed in $\frac{1}{4}$ flats or dump cases.

Standard Pear boxes, of which only a limited supply is available, must be retained for the packing of export varieties.

Export varieties of Pears must not be lodged in store before March 1 without reference and the approval of the Committee.

Growers are advised generally to follow their usual harvesting procedure for local market varieties. Picking should be done at the correct stage of maturity. Pears for storage should be lodged in store with minimum delay; only selected quality and medium and larger sizes should be stored.

VICTORIAN PROGRAMME.

The Victorian Apple and Pear Acquisition Committee is compiling its programme for sales of fruit in the Queen Victoria Markets, development of the case order trade, especially in country districts with the co-operation of the Railways De-

partment. Posters are being prepared and Station Masters will accept orders for case lots. A full publicity programme of school distribution, Garden Week display, Apple Weeks, etc.

PINEAPPLE JUICE.

Remarkable Health Properties.

Fresh Pineapple juice has been proved by medical research to be wonderfully efficacious in throat troubles and diphtheria, as the juice dissolves the fleshy tissue, such as is found in these ailments. A cure of diphtheria in a most marked, and, in fact, abandoned case is reported in an American medical journal as follows:-

"For three or four years I have been hearing of the use of Pineapple juice for the cure of diphtheria, but thought little of it. Recently, however, it has taken better shape in the report of a case when the child was given up by the doctor, and a friend, coming in, remarked that he had known children relieved by Pineapple juice. The physician in attendance said: 'Get it and try it, it can do no harm.' A ripe Pineapple was obtained and the juice expressed and given in teaspoonful doses slowly. It seemed to clear the throat, swallowing was much easier, and in a few hours the child was sleeping. Complete recovery ensued. A number of cases in the same neighbourhood were subsequently treated with the same successful outcome." The juice has also been found to be very useful for bronchitis, in softening the mucus.

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Brown Spot, A Serious Disease of the Passion Vine

Value of Pruning and Spraying

(W. P. Cass Smith, Plant Pathologist, W.A. Department of Agriculture.)

THE common Passion Vine (*passiflora edulis*) has been grown in Western Australia for many years, but the acreage under cultivation has only increased slowly; according to the best available information the area under crop for the 1938-39 season was approximately 100 acres.

A lack of suitable soil types or congenial climatic conditions is

certainly not responsible for this slow expansion in area for on a small scale the Passion Vine is successfully grown in many widely separated districts throughout the lower South-West portion of the State.

Undoubtedly this position is very largely due to two main factors, firstly marketing difficulties which make the disposal of commercial crops a rather

uncertain matter, and secondly diseases, which during recent years, by seriously reducing the productivity of many vines, have had an important bearing on the acreage cropped.

In November this year an opportunity occurred for the writer to visit North Dandalup, Keysbrook, and other major Passion Vine growing areas, and during this inspection a serious disease was noticed which symptomatically appeared to be identical with Brown Spot as described by J. H. Simmonds, M.Sc., Queensland. (1) Isolations made subsequently from infected leaves and stems confirmed this diagnosis.

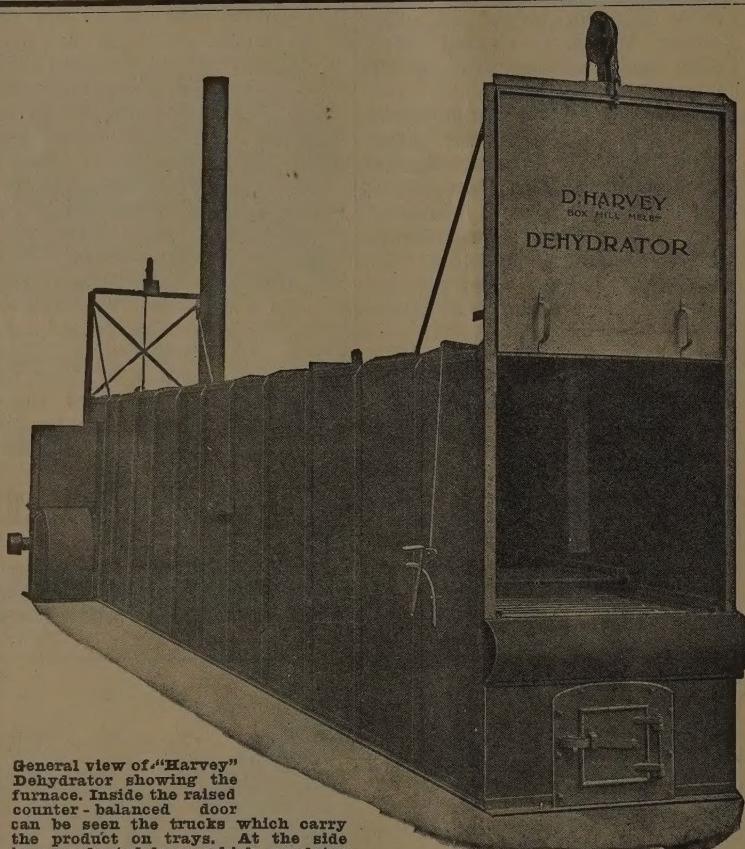
The following information compiled from observations

made by the writer and by various members of the Horticultural Branch and also from experiments conducted elsewhere is briefly recorded, with the hope that it may be of advantage to growers, many of whom are extremely puzzled by this disease.

Symptoms and Effects.

Brown Spot may attack all the above-ground parts of the vine. On the leaves infection first becomes evident by the appearance of small brown spots which under favorable conditions enlarge in a more or less circular manner, gradually developing lighter colored central areas. The spots may enlarge until

(Continued on Page 29)



General view of "Harvey" Dehydrator showing the furnace. Inside the raised counter-balanced door can be seen the trucks which carry the product on trays. At the side is a graduated lever which regulates automatically the dry and moist air. The blower and stack are shown in the distance.

Fruitgrowers

THE "Harvey" Air Re-Circulation Dehydrator

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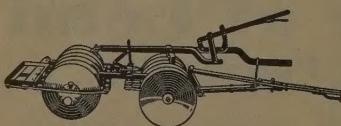
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Proved to be an excellent machine for deeply cultivating heavy irrigation land.



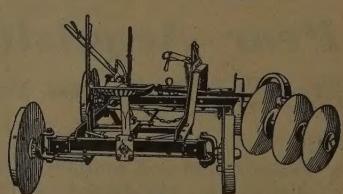
THE BEETLEBACK cuts out all hand working under citrus trees, and keeps the ground level. It lifts up the branches, cultivates under them, and gently replaces them on the ground.



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Queensland—Buzacott (Queensland) Ltd., 443 Adelaide St., Brisbane.
S.A.—Cole & Woodham, Box 12, Renmark.

APPLE TREE PRUNING

With a Minimum of Injury to the Tree

By Geo. W. Wickens

(Previously Superintendent of Horticulture, W. Aust. Department of Agriculture.)

During his long service as Superintendent of Horticulture to the Western Australian Dept. of Agriculture, Mr. Geo. W. Wickens won the esteem of all who knew him, both for his administrative ability and his cultural knowledge.

In the subjoined article Mr. Wickens deals with an important subject—the introduction of a modified system of pruning Apple trees.

This subject is of interest not only in the Western State but to growers in all parts of Australia and New Zealand.

Let Mr. Wickens now tell his story in his own way, thus:—

I HAVE CHOSEN the above as a heading to this article because I wish at the commencement to stress the fact that neither in Winter nor Summer can Apple trees be pruned as practised in Western Australia without injuring the trees to a greater or lesser extent, the amount of injury done being governed by the violence of the operation.

Fortunately, so far as Summer pruning is concerned, there are not many growers who still adopt that method in endeavoring to induce or increase fruit-bearing habits, the intelligent use of lateral growths having superseded for this purpose the Summer pruning which many years ago was quite common: and Summer pruning in the great majority of orchards is now limited to removing sufficient young shoots on varieties such as "Yates" and "Dougherty" to allow the sun's rays to reach and color the fruit. On strongly growing trees with heavy foliage this amount of Summer pruning is necessary and cannot be avoided, but even here what I have said above about injuring the tree holds good, though the damage done is so slight as to be practically negligible.

It is in ordinary orthodox Winter pruning, however, where hard cutting, particularly of young trees, is believed to give strength, that very real damage to the trees is being caused, and although I have not enough facts before me to state definitely that hard Winter pruning is one of the main contributing causes to the condition in Apple trees known as "die-back," I firmly believe such to be the case. For the past ten years I have been closely watching the growth of Apple trees which have had Winter pruning limited to removal of excess shoots before these have grown into limbs, and the usual ordinary treatment of fruit-bearing lat-

erals; the extra vigor of trees so handled compared with those pruned in the ordinary manner is outstanding. I would like here to state, for the information of the many Apple growers in Western Australia who have attended pruning demonstrations given by myself that during the many years I have been attached to the Department of Agriculture—starting with the first pruning demonstration at a small orchard in the Upper Blackwood in 1903—I have changed by degrees from a fairly hard pruner with a liking for fruit borne on short spurs, to one who would endeavor to train the tree from the time of planting in such a way that all hard cutting would be eliminated. Those who have followed my demonstrations will know that at first "Jonathan" was the only variety upon which I used laterals for carrying the fruit, all the rest I spur pruned, but eventually I reached the stage when all varieties were treated as lateral bearers, and I believe I was the first in Western Australia to give demonstrations showing that the best results could be obtained with "Yates" when these were made to produce their fruit on laterals instead of spurs, this latter variety having been looked upon as essentially "spur-bearing."

As stated above I have been closely watching trees very lightly pruned and judging results since 1929, and though I was convinced five years ago

that our pruning system required changing I had not sufficient tangible results to put before growers as proof, until one of these trees—the only one I had handled from time of planting—had cropped for several years. Last year I considered the test sufficient, and I broadcast on May 6, 1938, particulars of the new system, and advised growers to try it. I have been flattered by the number of growers who have followed that advice in the Winter pruning seasons of 1938 and 1939, and whereas previously there were only a few trees from which to make comparisons, now there are literally thousands, and while the system advocated can only attain its best when done from the time the tree is planted, it can be applied at any stage to a tree that is making vigorous growth.

What first caused me to think that pruning the leading shoots of an Apple tree had an injurious effect on their growth was noting that stronger and better growths were made by any shoots that had been, either by accident or design, left unpruned.

The commonest occurrence, and one that all pruners must have noticed, is the effect of leaving unpruned the growth arising from the second bud from the top of the leader, and pruning the shoot arising from the top bud: in practically every instance the growth from the low-

er bud will far exceed that from the top bud, and, to quote a very common saying amongst pruners—"it has robbed the leader." Reverse the position by pruning the lower shoot allowing the top one to remain unpruned, and the top shoot will show the greater growth. Right through the tree this principle holds good; the unpruned shoot — other things being equal—exceeding the growth of the pruned shoot. I am giving the above as one instance that I had noted, but there were many, very many, others, and they occurred not only on Apple trees, but on Pear and stone fruit trees as well. To mention them would make this article unduly long, so I will only say to growers who are interested, and who want proof—"Go ye out into your orchards, seek, and ye shall find."

"The System."

Commence at the time the tree is planted, and if when it is received from the nursery it has three or four nicely spaced limbs of equal growth, allow these limbs to remain unpruned, but in early September put a shallow nick through the bark above one or two buds where limbs are required for leaders. Varieties like "Yates" and "Granny Smith" without nicking usually throw out a sufficient number to allow a choice of the best to be made, but varieties like "Cleopatra" and "Dunns" instead of

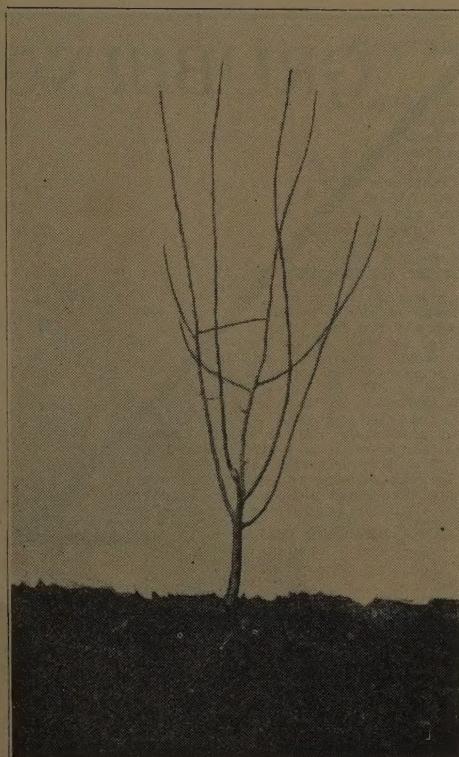


Fig. 1.

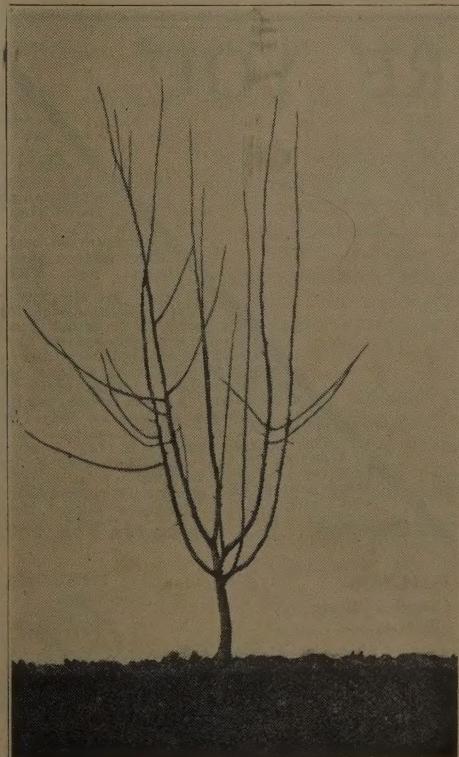


Fig. 2.

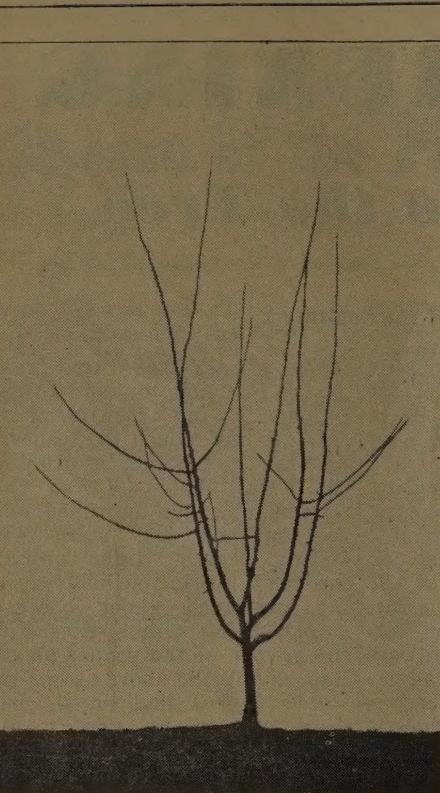


Fig. 3.

making side shoots often turn when the season's growth is to fruit buds, and to make certain of growths for leaders it finished will be nearly level, and not only that, but the previously

is best to nick above the buds where the limbs are required. If the young trees, when received from the nursery, have three or four limbs which are not of equal growth, but have one strong and two or three weak, or two strong and one weak, or two strong and two weak, or any other combination, cut the strong ones back to a length of four to five buds from the base and let the weak ones remain unpruned. If the root system is evenly distributed around the base of the tree (not one-sided) it will be found in practically every instance that the growths made, from the unpruned weak limbs will be so much stronger than the growths made from the strong pruned limbs that the tops

weak limbs will be stronger than the previously strong ones.

Figure 1 illustrates a "Yates" Apple tree; a weak tree (a whip) at time of planting in July, 1937. It was cut back and threw out one strong limb and three weak ones. The strong one was pruned to about four buds from the base—see white mark on limb near fork—and the other three were left unpruned. The figure shows that the growths from terminals (see narrow white mark) of the 3 weak limbs have not only equalled in length the growth from the strong limb, but are now stouter and stronger right down to the fork than the pruned limb. The orchard where this photograph was taken comprises nine acres of young trees, and in every instance where there were strong and weak limbs on any tree the strong were pruned and the weak left unpruned and in every case the result was similar to that described.

Figure 2 illustrates a "Yates" Apple tree, planted July, 1937, pruned at planting, and only one limb pruned in 1938.

Figure 3 is the same tree pruned this season in accord-

ance with the new system. It will be noted that apart from removing the side shoots from the top of one leader on the left (an essential factor in the system), and one shoot at the bottom that was growing straight up through the tree, hardly any cutting has been done. The tree is so well shaped that very little propping out is required, one spreader between two limbs being all that is necessary.

I would like here to draw attention to the limbs growing out from the main limbs. These will not be pruned, and will be used as subsidiary leaders to assist in forming the main framework of the tree. Another fact worth mentioning is that limbs coming out at the angle shown, and not situated at nearly one level, like leaders arising from the end buds of a pruned shoot, are much the stronger and better placed.

Figure 4 is a photograph of a "Granny Smith" Apple tree with two seasons' growth, planted in 1937, pruned at time of planting and unpruned in 1938.

Figure 5 is the same tree as shown in No. 4 pruned in August this year—a well shaped tree, strong and vigorous, required very little pruning, excepting removal of side growths near tops of leaders.

Though I have only used "Yates" and "Granny Smith" as illustrations there are "Jonathans," "Cleopatras" and "Delicious" treated in the same way in the same orchard, all quite successfully. In connection with "Jonathans" I thought at first it was one variety to which the new system could not be applied on account of its weak and rather bushy habit of growth, and its propensity to crop on the previous year's growth, whether lateral or unpruned leader, but experience has shown the advantage in growth is such that the extra time entailed in stripping blossoms or young fruits from the terminals of the unpruned leaders is well repaid by the extra vigor imparted to the tree.

It must be remembered that during the first three years, no matter what variety of Apple tree is under consideration, fruit must not be allowed to grow on or near the ends of the leaders, and to prevent this either the blossoms or young fruits must be removed. If allowed to remain the weight of fruit will bend the leaders out of shape.

When training young trees having an upright habit of growth, such as "Cleopatra" and "Granny Smith" it is essential that either by propping or using spreaders between limbs on opposite sides of the trees, the trees are opened sufficiently in the centre to allow light and air to circulate freely and room between the limbs for fruit bearing laterals. Care must be exercised when spreading the trees in this fashion to avoid placing any limb at such a wide angle that the inside buds will grow upwards to the detriment of

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GRUBBING?

Previous experience had convinced me that to be really efficient a grubbing machine should have ample power and ropes that will meet the heavy demands required of them. I found that shovel and axe work is very costly either by itself or in conjunction with a machine. The machine that offered these features with a host of others, was THE "MONKEY" GRUBBER.

It gave me the power of 260 pairs of hands in a simple and compact form; the lever is short, so that I am able to stand firm-footed and get the full stroke. There are two speeds in the machine, as well as an automatic release that allows me to let off a strain, or as the machine will work in any position, it comes in for all jobs that would require a chain block. It is taken to the job on a pair of wheels like a barn truck, and is rigged for work in a few minutes. The ropes are in lengths that I find easy to handle, and each one is fitted with hook and loop couplings, so simple and absolutely IT for effectiveness. The makers have included a sturdy snatch block with a novel method of securing to the ropes, and also a fine type of firm gripping rope shortener. The latter makes it very easy to accommodate the lengths of rope to the tree or stump being pulled, and is quickly released from the rope. The combination of so many time and labor saving features makes the "Monkey" Grubber a superior grubbing outfit.

REMEMBER FOR YOUR GRUBBING THERE'S ONLY

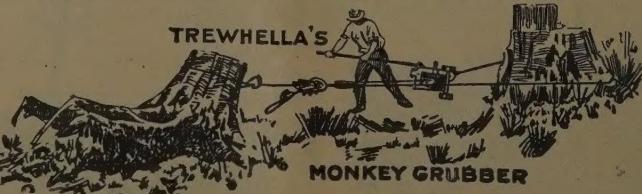
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growths from the terminals and from the buds on the outside of the leaders — these latter growths, as pointed out earlier in this article, form the sub-leaders. Trees treated in the manner advocated, if healthy, will commence bearing in their fourth year, and from then onwards pruning is simple, merely comprising the removal of side growths from the leading shoots, always keeping the topmost growths unpruned, the removal of excess growths before they obtain sufficient size to require being cut out as limbs later in the tree's life, and treatment of laterals as the main source of fruit production.

A bit of advice about laterals might be of service here, and it is this—use every endeavor to provide laterals that as nearly as possible spring direct horizontally from the larger growths whether leaders or sub-leaders: a lateral that has been heavily pruned as a spur for several years before being allowed to remain with an unpruned terminal, is in the same injured condition from over-pruning as the annually pruned leader. When lateral growths have reached a length greater than they can support, or bring to size, the fruit borne on them, then shorten them back to a suitable length.

Figure 6 is a photograph, taken in August this year, of a "Granny Smith" Apple tree in Mr. George Parke's orchard at Donnybrook, which in 1930 he very kindly handed over to me for the purpose of testing my theories about unpruned terminals. The tree is one of 400 whips planted in 1930, and it is mainly due to the knowledge I have gained with this tree during the last ten years that I now

can confidently describe the system as a success. It will be noticed a prop was needed last year to help support the crop and there are growers who state that any system of pruning which does not make the tree rigid enough to carry its crop without other support to the limbs, is not worth considering; but a tree that bears as this tree has borne is worth propping, and even in orchards trained in the orthodox manner it is rare to see one where supports are not needed in seasons of heavy crops. This tree was supported by a prop in the centre, maypole fashion, and the small black

object showing amongst the limbs are pieces of leather attached to the wires which extended from the pole to the heavily laden limbs before the crop was gathered, the leather being used to prevent the wires from cutting into the limbs.

The history of the tree's production is as follows:

Planted 1930.

In 1934 produced 1 case.
In 1935 produced 4½ cases.
In 1936 produced 8 cases.
In 1937 produced 8 cases.
In 1938 produced 10 cases.
In 1939 produced 19 cases.

A fine record truly!

There is a "Granny Smith" in an adjoining row, one of the 400 planted at the same time, and is a fair average specimen of the trees which have received exactly the same treatment in every respect — fertilizing, cultivation, etc.—as the experimental tree, the only difference being pruning. The experimental tree commenced bearing in earnest in 1935, the remainder waited until 1938, and then only produced an average of 1½ cases per tree. — "Journal of Agric.", W.A.



Fig. 4.

Fig. 5.



Fig. 6.

(Illustrations by courtesy W.A. "Journal of Agriculture.")

Tomato Mite

Serious Damage Caused in N.S.W.

Lime Sulphur and Bordeaux Sprays for Control.

MUCH DAMAGE has been done to Tomato crops in N.S.W. by the Tomato mite.

The stalks and under surfaces of the leaves take on a smooth, brown appearance, the foliage sometimes shows a slight silvering and the leaves may droop. At times, too, the fruit develops a rough, corky appearance.

Control Measures.

"The most effective treatment" (states Mr. W. L. Morgan, Biologist, N.S.W. Dept. of Agriculture), "is to dust the plants with a mixture of equal parts of fine sulphur and hydrated lime. But if the plants are heavily infested, sulphur dusting is apt to cause some leaf scald, especially in very hot weather. Under such conditions it would be better to use lime-sulphur spray at the rate of one gallon to 40 gallons of water."

"It is often necessary to treat late crops for mite, and in this case the lime-sulphur spray may conflict with Bordeaux spraying. An alternative is the use of colloidal sulphur with the Bordeaux at the rate of 2 lb. to 40 gallons of the Bordeaux spray, or wettable sulphur at the rate of 1 lb. to 12 gallons.

"The wettable sulphur does not stay in suspension very well, and growers who are forced to use knapsack spray outfits should rather use the colloidal form. Where mechanical agitation of the spray material is possible the wettable sulphur is satisfactory."

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CITRUS NEWS AND NOTES

N.S.W. CITRUS CROP PROSPECTS.

CITRUS CROP PROSPECTS for N.S.W. are set out hereunder in the latest report to hand from the N.S.W. Department of Agriculture:—

A satisfactory setting of all crops is reported from Maitland.

Navels have fallen extensively in parts of the Gosford district; settings vary, although in some groves the showing of young

fruit is satisfactory. Common Oranges have set fairly well. The shedding of main crop Lemons has been heavy. In most orchards there is a satisfactory crop for marketing during February and March. Generally, Mandarins will be light. Rain needed.

Along the Hawkesbury the dry conditions caused much shedding of Navels, Mandarins, and Grapefruit. On present indications, crop prospects are good to moderate for Navels, medium to light for all other Oranges and Mandarins is patchy. Prospects for the coming season appear medium to good for Lemons.

Dry weather is adversely affecting citrus groves around Baulkham Hills. The main crops of all citrus fruits are likely to be light.

Around Windsor unfavorable weather has caused a heavy

shedding of Navels. Development of both intermediate and main crop Lemons is slow, and moisture is needed urgently. Mandarins and Grapefruit set very well, but the fruit is beginning to fall. However, it is thought that the smaller quantities on trees may result in better size and quality, particularly the former.

At Kurrajong considerable shedding of Navels has taken place, and the setting of other Oranges and Mandarins is patchy. Prospects for the coming season appear medium to good for Lemons.

The conditions are reported to have been the driest for many years in the Parramatta-Camden district. All citrus trees have suffered; leaves have curled up and a very heavy shedding of fruit has taken place.

Citrus Red Scale

Fumigation and Spraying in Summer.

That red scale is still a major pest in citrus groves was recently emphasised by Mr. R. Roberts, Orchard Supervisor in the Mildura district.

"Where the infestation is so slight that fumigation is not warranted, an oil spray should be applied," states Mr. Roberts. "That is the first line of defence. Should the infestation develop, fumigation can be resorted to. This combination of oil spray followed by fumigation is practically 100 per cent. fatal. As the oil destroys by contact, it is essential that this spray reaches all parts of the tree, otherwise contact is not made with the scale and the "kill" is not satisfactory."

"The most opportune time to spray is late December, or early January, and the work must be done thoroughly, otherwise some insects will survive to become a potential danger later in the season.

"Trees, which appear to be quite clean, are certain to be carrying an odd scale, and the rate of increase is appalling. For every scale that is noticed scores are overlooked."

"The old bogey of the expense of fumigation will no doubt be revived, but growers should remember that the cost of fumigation is infinitesimal compared with the cost of removing scales from fruit, the health of their trees, and the productivity of their groves."

Citrus in New Zealand

In the Auckland district the Lemon crop is reported to be patchy. Peak periods of harvesting occur in May and September.

Under the Government marketing scheme the price for Lemons is 7/- per bushel; the revised grading system has reduced the number of grades from three to two; the payment of 7/- per case as the basic rate but if certain marketing improvements can be effected this may be raised to 7/6.

A normal crop of Oranges and Grapefruit has set, and unless abnormal weather conditions ensue the yield should be equal to those of recent years.

Mr. H. Turner, who has been the representative in London of the N.Z. Fruit Export Control Board, recently paid a short visit to the Dominion. He left again early in January to return to London via U.S.A. and Canada, where he is investigating new methods for utilising waste fruit in form of by-products such as Apple crisps, Apple powder, dried Apples, Apple vinegar, and fruit juices.

Mr. Turner will now manage the overseas fruit sales section of the N.Z. External Marketing Department.

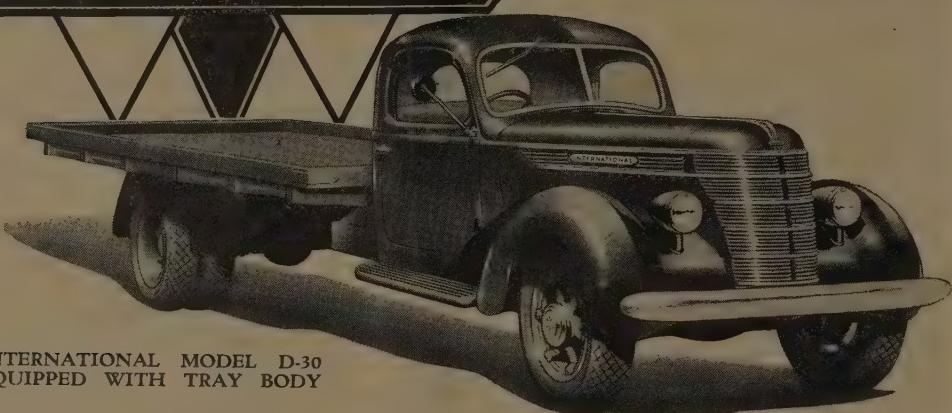
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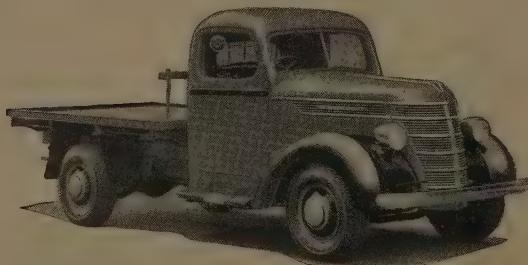
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South Australian News and Notes



INCLUDING OFFICIAL NOTES AND REPORTS FROM THE SOUTH AUSTRALIAN FRUITGROWERS' & MARKET GARDENERS' ASSOCIATION.

S.A. Fruitgrowers' and Market Gardeners' Association Incorp.

Meeting of Executive Committee

THE Executive Committee of the above Association met in the Board Room, 288a Rundle-street, Adelaide, on January 26, 1940, at 10.30 a.m.

The President (Mr. H. N. Wicks) presided over the meeting, which was attended by: Messrs. C. B. Robin, H. F. Lock, H. B. Robson, C. Redley, G. H. Schultz, R. Hannaford, F. F. Redden, L. J. Wicks, G. Clifton, G. Jennings, G. T. Pitt, F. Hughes, E. L. Giles, J. Turner, D. O. Petersen, R. A. Cramond, W. J. Bishop.

Apologies received from Messrs. C. W. Giles, J. B. Randall, M. J. Vickers, N. T. Hobbs, H. W. Parsons, F. A. Wicks.

Minutes of December meeting confirmed.

Correspondence.

Metropolitan County Board: Letter received from the County Board regarding the use of manure bags for the carriage of vegetables, etc., and advising that the Board intends enforcing the Regulation in question. Resolved that the letter be received and published in the "Fruit World" for the information of growers.

Torrens Valley A. & H. Society: Letter from Torrens Valley A. & H. Society conveying thanks for support afforded the last Show and advising that the next show will be held at Paradise on Saturday, February 24, 1940.

Resolved that the Association again donate £1/1/- towards the Torrens Valley Show.

C. W. McRostie: Advice received from the Melbourne Representative re the possibility of an alteration in the opening hours of the Melbourne Wholesale Fruit Markets.

Fruit Industry Sugar Concession Com.: Circular received setting out minimum prices to be paid for Peaches and Pears for processing 1940 season.

Codling Moth Lure Records: Statement setting out Codling Moth catches at Blackwood Experimental Orchard.

The Chief Horticulturist (Mr. A. G. Strickland), who was

present at the meeting, was thanked by the President for this valuable service.

Branch and Sectional Reports.

Barossa Branch: Mr. C. B. Robin reported that the Branch was making steady progress, and asked that if the Association had an officer available his services would be appreciated by the Branch at a later date for organising in the Barossa District. The Apricot crop was panning out better in the district than first anticipated. Apple and Pear crop was good.

Cherry Section: Mr. R. A. Cramond reported that Cherry growers had experienced a very satisfactory season. The crop was better than anticipated, prices were good, and the quantity exported was a record.

Tomato Section: The Secretary reported that the Glasshouse Export season had finished, and a satisfactory year had eventuated.

Potato Section: Mr. C. J. Pitt reported on the present Potato position.

Apple Section: Mr. H. N. Wicks reported that he had hoped to present a detailed scheme for the crop distribution in South Australia, but Mr. M. J. Vickers had not yet returned from the Board Meeting in Melbourne. A telegram received from Mr. Vickers stated that the scheme advocated had been accepted subject to review. The Acquisition Committee were working hard, and as far as he was personally concerned he would strive to keep open every channel of distribution. He considered that growers should be able to sell their own produce.

The Apple report was followed by lengthy discussions.

Fruitgrowers' Society: The Chairman of the Society, Mr. W. J. Bishop, stated that the Society, to extend its operations, was making a drive for additional capital, and the response was most satisfactory. The Committee of Management was very grateful for the services rendered by Mr. M. Packer in canvassing members in connection with the Bond issue.

Finance: The Secretary submitted the financial statement, and presented A/c's. for payment. Resolved accounts as submitted be paid.

"Mail" Supplement: The Secretary reported that the "Mail" was anxious to print a supplement covering the fresh fruits industry, and its associated industries, but required the assistance of the Association in so doing.

Mr. W. J. Bishop moved that the offer be accepted, and a sectional committee be formed to assist in the compilation of the required data. Sec. Mr. G. H. Schultz. Carried.

Resolved that the Chairman of the various Sections collaborate with the "Mail" representative.

TORRENS VALLEY ANNUAL SHOW.

The Torrens Valley Agricultural and Horticultural Society will hold its 1940 Show on the Glen Roy Park, Paradise, on Saturday, February 24, 1940.

The Society is considered to stage the best Autumn display of fruit and vegetables in South Australia, and with the excellence of the fruit and vegetables available this year, the Society hopes to exceed the success attained by past displays.

Torrens Valley is considered the home of flowers, and the flower display will be again staged.

Other sections include Cookery, and District Exhibits.

In addition to the Horses-in-action, the Society will introduce a new ring feature this year—a Donkey Derby, which promises to be a popular feature.

The various Committees are working hard to make the 1940 Show an outstanding success.

STRONG GALE DOES DAMAGE TO ORCHARDS.

A gale which reached a velocity of 60 miles an hour swept over the Adelaide Plains on Wednesday afternoon, January 24, 1940, and orchards on the Adelaide Plains sustained some damage as a consequence.

Peach growers were the principal sufferers, and many trees were denuded of fruit.

The rain which followed was not sufficient to be of much material benefit.

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THE LUCERNE FLEA.

An interesting article by Mr. D. C. Swan, M.Sc., of the Waite Agricultural Research Institute, on Lucerne Flea, appeared in the January issue of the S.A. "Journal of Agriculture."

In dealing with the control of this troublesome pest in market gardens, Mr. Swan writes:—

"It is during the seedling stage that market crops are most likely to suffer severe damage. Once established they are able to withstand later attacks. Lime sulphur spraying by knapsack sprayer or small portable power-driven plant should be used to protect them. Weed control around borders and other steps, such as a cultivated border, are also necessary to prevent insects from moving into the beds again. The spray should be used at about 1-50 with a spreader, and applied at good pressure. The frequency of spraying can be judged from the results; probably two sprayings at intervals of a week would give sufficient protection to allow establishment of the plants. Later sprayings may be required according to the particular conditions of the garden concerned."

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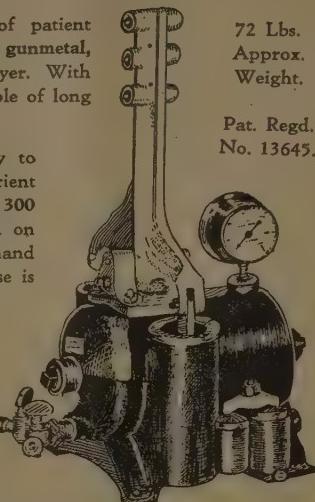
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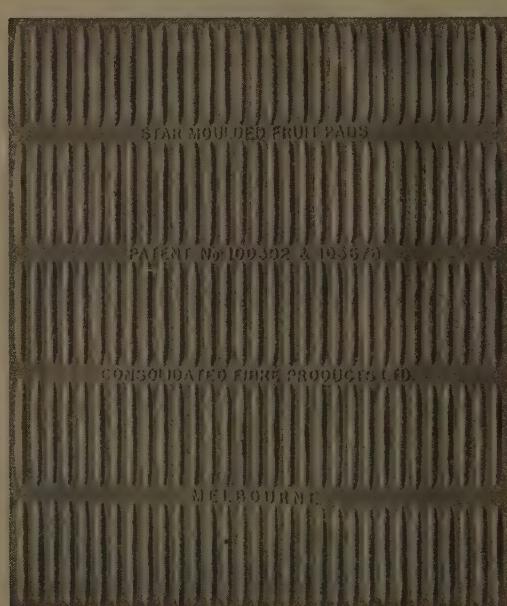
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South Australia — (Continued)

Apple and Pear Acquisition

Minister of Commerce Addresses Growers in South Australia

Growers Protest Against Scheme

APPLE and Pear members of S.A. Fruitgrowers' and Market Gardeners' Association Incorp. attended the annual general meeting of S.A. Fruitmarketing Association (at the invitation of that organisation) on Friday afternoon, January 19 last, when Hon. G. McLeay, Minister for Commerce, was present and addressed growers on the Federal Apple and Pear Acquisition.

The Minister, during his address, was subjected to many interjections concerning the scheme, and at the conclusion of same replied to questions. He stated that the legislation was a war emergency, and the Federal Government ordered it from an Australian point of view, not that of a separate State. Senator McLeay stated that he was a South Australian but under conditions which Australia found herself to-day, he was an Australian, and Apple and Pear growers in the State must look at the present position in the industry as one pecu-

liar to all States' of the Commonwealth. "One in all in" stated the Minister.

Mr. J. B. Mills, Chairman of the Apple and Pear Board, who was also present at the meeting, spoke on the work of the Board, and the part it was playing in the distribution of crop under the Acquisition. Committees had been appointed in each State to devise a scheme for the distribution in that State, and as conditions differed in the various States it followed that a uniform scheme could not be advanced by the Central Board, and it therefore relied on each State Committee to submit for confirmation, a scheme most applicable to its local conditions.

On being asked to outline South Australian scheme, Mr. G. Pope (Chairman) said that until the scheme had been considered by the Central Board the S.A. Committee could not release any of the details.

The meeting ultimately passed a resolution voicing its protest to the Federal Acquisition.

METROPOLITAN COUNTY BOARD.

The Secretary,
S.A. Fruitgrowers' and Market Gardeners' Association,
Box 43, Rundle-street, P.O.,
Adelaide.

Dear Sir,

I have been directed to bring before your notice the Regulation under the Food and Drugs Act regarding the use of manure bags for the carriage of vegetables, etc., and to inform you that the Board intends enforcing the Regulation in question.

It would be appreciated if you would bring this matter before your members, and it is suggested that notices displayed throughout the Market would be of considerable assistance.

The Regulation referred to is as follows:—

Clause 16 of Regulation 10 of the 1915 Regulations.

No person shall enclose or carry or store Wheat, Oats, Maize, Potatoes, Onions, fruit or any other article of food for sale in any bag or sack or similar receptacle which has at any time contained or has been used for the conveyance of bonedust or superphosphate or any other manure or mixture of manures.

MILK AND FRUIT JUICE BARS IN CAMPS.

ADELAIDE, January 20.—At the Woodside Camp (S.A.), where thousands of militiamen are to have three months' training, milk and fruit juice bars will be established, financed by the Australian Temperance Council.

Mr. R. W. Bowey, acting on behalf of the South Australian Rechabites, said that the Council had undertaken to provide £10,000 worth of refrigeration equipment for military camps in Australia. The Woodside plant would cost £300.

TACKLE COUCH GRASS NOW.

As the weakest cycle of Couch Grass is during January and February (the time of flowering) the opportunity should be taken to weed it out now. A good weeding at this time of the year will kill it, whereas earlier the same treatment would help it spread.

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SOUTH AUSTRALIA (Continued)

South Australian Fruit Marketing Association

THE monthly meeting of the executive of the South Australian Fruit Marketing Association, was held at Adelaide on January 19, 1940.

There were present: Messrs. D. Norsworthy, G. S. Queale, R. O. Knappstein, A. O. Petersen, C. A. Stewien, F. B. James, P. R. B. Searcy, A. R. Willsmore, F. Rowley, R. G. Hannaford, J. B. Randell, F. F. Redden, E. Leishman, R. A. Cramond, R. H. A. Lewis, J. H. Dunning, H. N. Wicks, A. G. Strickland, W. W. Millar, G. Mack, S. M. James, M. G. Basey, W. F. E. Smith, L. J. Bishop, H. C. Austin, G. A. W. Pope, M. J. Vickers, H. M. Charlick, and the Secretary.

The President, Mr. J. B. Randell occupied the chair.

Correspondence.

Letter from the Premier advising that owing to meeting of the Loan Council in Melbourne, he would be unable to attend the annual general meeting.

Letter from Australian Apple and Pear Council, enclosing copy of Australian Trade Commissioner's notes received from the Department of Commerce.

Report from the Department of Agriculture giving codling moth lure records at the Blackwood Experimental Orchard.

Annual report of the Chief Horticulturist for the year ending June 30, 1939.

Pamphlets from the Minister of Commerce dealing with wartime marketing and financial assistance to the wheat industry.

Mr. Harold Goldsack, fruit-grower, Coromandel Valley was elected to membership.

Thrips Investigation.

It was resolved that the Secretary write the Commonwealth Institute of Scientific and Industrial Research asking for a report in regard to the investigation and also a statement showing how the funds had been expended.

February Meeting.

It was agreed that the February meeting should be fixed for February 16 in lieu of February 28.

It is estimated that the South African citrus crop this season will be 5,000,000 cases—an increase of about 1,400,000 cases over the 1938 yield.

S.A.F.M.A. Annual Meeting

The eleventh annual meeting of the S.A.F.M.A. was held at the "Stadium," Grenfell-street, Adelaide, on January 19.

In addition to the executive, about 180 members attended.

Senator G. McLeay, Minister for Commerce, Mr. J. B. Mills, Chairman of the Australian Apple and Pear Board, and Mr. Everard Ross, of Tasmania were also in attendance.

An apology was received from the Premier (Mr. Playford), the Minister of Agriculture (Mr. A. P. Blesing), and the Assistant Minister for Commerce (Mr. P. A. McBride).

The President, Mr. J. B. Randell, occupied the chair.

Committee's Report.

In presenting the report of the Committee, the President stated that the Association had sustained a severe loss in the death of Mr. H. J. Bishop, who had been President from the inception of the Association until compelled to resign by ill-health in July, 1938.

Other matters referred to were the proclamation of the Act in regard to the Apple and Pear Board, and the appointment of Mr. P. R. B. Searcy as the Shippers' representative, and Mr. M. J. Vickers as the Growers' representative on this Board.

Mr. J. H. Dunning had been appointed on the State Advisory Committee on Eastern Trade in succession to the late Mr. H. J. Bishop.

The S.A. Section of the Australian Markets Committee was formed in April, 1939, and it held regular monthly meetings and was performing useful work.

The question of the continuance of the Apple and Pear Council now that the Apple and Pear Board had been formed had been discussed on a number of occasions.

Very lengthy discussions had taken place on the proposed introduction of the Sales Tax on Apples and Pears.

The Association had presented the usual prize at the Royal Agricultural Show for Apple Packing, which was won by Mr. J. Coombe, of Blackwood. While a prize of £6/6/- for export Apples was won by Mr. W. Christian, of Verdun.

Fifty-two new members had been elected during the year, the membership being approximately 365.

Reference was also made to the disastrous outbreak of war and the probable serious effect on the Apple and Pear industry. As was wellknown, the Federal Government was acquiring the whole of the Apple and Pear crop, and it was hoped that the eventual result would prove satisfactory to the growers.

The State Committee appointed to act in conjunction with the Central Acquisition Committee in Melbourne, consisted of five members, namely, Messrs. M. J. Vickers and P. R. B. Searcy, representatives on the Apple and Pear Board; Mr. G. A. W. Pope, Government representative and chairman; Mr. L. J. Bishop nominated by merchants; Mr. H. N. Wicks nominated by the growers; Mr. A. R. Willsmore, of the Government Produce Dept., as Secretary.

The President formally moved the adoption of the Committee's report which was seconded by Mr. H. M. Charlick, and carried.

Apple and Pear Acquisition.

Senator G. McLeay, Minister for Commerce, addressed the meeting explaining the Commonwealth Government's Apple and Pear acquisition plan, and Mr. J. B. Mills, Chairman of the Apple and Pear Board also spoke. At the conclusion of this address the meeting was thrown open to questions and discussion and after a number of questions had been asked, Mr. F. C. Staniford (who was not a member of the Association) by permission of the President, submitted a motion which was carried by a small majority, stating:—

"That the scheme destroyed the right of the grower to his individual liberty; failed to provide a reasonable method of distribution; created additional unemployment, and struck a vital blow at the life of the fruit industry."

Vote of Thanks.

Mr. G. S. Queale moved a vote of thanks to Senator McLeay and to Mr. J. B. Mills, for attending the meeting and answering the various questions. He considered that members were greatly indebted to these

gentlemen for attending, and he realised that the Minister was faced with a very difficult task.

This vote was carried by acclamation, and the Minister and Mr. Mills then left the meeting.

Election of Officers.

The Hon. T. Playford, M.P., was unanimously re-elected as Patron.

Mr. G. Mack nominated Mr. J. B. Randell as President, this nomination was seconded by Mr. A. O. Petersen and supported by Mr. F. F. Redden, and as no other nominations were received, Mr. Randell was re-elected as President.

Mr. Randell thanked members for the confidence shown in him by members in re-electing him as President, and he would use his best efforts on behalf of the industry during the coming year.

Voting Members—6 Growers.

On the motion of Mr. P. R. B. Searcy, seconded by Mr. A. O. Petersen, it was resolved that the present Committee, viz. Messrs. A. Brealey, M. G. Basey, S. M. James, R. O. Knappstein, A. O. Petersen, H. N. Wicks, be reappointed.

Auxiliary Committee—Growers.

Messrs. R. A. Cramond, R. G. Hannaford, R. H. A. Lewis, A. J. Mitchell, W. W. Miller, T. Playford, R. B. Pritchard, G. Quinn, F. F. Redden, F. Rowley, A. G. Strickland, M. J. Vickers, C. L. Winser.

Voting Members—4 Shippers.

The retiring members: Messrs. H. M. Charlick, F. B. James, P. R. B. Searcy, G. A. W. Pope, were all re-elected.

Auxiliary Committee—Shippers.

Messrs. L. J. Bishop, A. Filsell, G. Mack, D. Norsworthy, C. E. Russell, W. F. E. Smith, were appointed.

Research Sub-Committee.

The following were appointed as members of the Research Sub-Committee: Messrs. H. N. Wicks (Chairman), M. G. Basey, R. A. Cramond, R. G. Hannaford, F. B. James, S. M. James, R. O. Knappstein, R. H. A. Lewis, W. W. Miller, A. J. Mitchell, A. O. Petersen, T. Playford, G. Quinn, F. Rowley, J. B. Randell, F. F. Redden, A. G. Strickland, M. J. Vickers, C. L. Winser, R. B. Pritchard.

All district delegates were re-appointed.

On the motion of Mr. Petersen, seconded by Mr. Searcy, a hearty vote of thanks was passed to the President for his services during the past year. This was carried with acclamation.

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GRADERS AND PACKING HOUSE EQUIPMENT — SPECIALISED ORCHARD IMPLEMENTS.

"The Best is the Cheapest in the long run"

SOUTH AUSTRALIA - (Continued)**Report by Department of Agriculture**

The annual report of the Horticultural Branch of the S. Aust. Department of Agriculture contains many items of interest.

Regarding investigational work at their experiment stations, the following is stated:

Blackwood and Fullarton Orchards.

Permanent trials have been continued, and new experimental work initiated. Further manurial trials were commenced on twenty plots of Apples. The initiation of new restoration and maintenance of soil fertility by green manuring, and long range trials have been commenced.

Trials with citrus rootstocks and Almond varieties have been continued at Fullarton, and the

raising of rooted vines for subsequent planting at the Barossa Viticultural Station has been attended to.

Berri Orchard.

In addition to the continuation of the permanent trials, experimental work has been carried on at the orchard or in the district in connection with citrus stocks, Chlorosis of Apricot, Peach and Pear, processing of vine fruits, fertilisers for citrus experiments, tree variation, etc.; Oranges have been harvested, both from the experimental orchard and other sources for cool storage experiments in Adelaide.

Preliminary work has been completed for the manurial experiments on Sultana and Currant vines, and more experimental vines will be planted this year.

Instructional work in pruning and processing of fruit was given to students of the Renmark High School, as well as other interested parties in the district.

Barossa Viticultural Station.

Twenty acres of land were prepared for vines and approximately 10 acres will be planted this year, instituting subsoil and planting distances, and manurial trials.

The boundary fences at the Station have been made vermin-proof, and a shed erected for housing plant, etc.

Experimental Work in Various Districts.

Horticultural Officers conducted experimental work on properties throughout the State, main projects including the following:

Brown Rot spraying control on Cherries, spraying and bandage trials for Codling Moth, and lure records at various centres; Apple Scab control at

four centres, and Leaf Scorch control at Verdun; manurial trials at Upper Sturt and Balhannah; Black End of Pears, and storage trials with Apples.

Dried fruits work has been considerably extended and covers reworking methods on the Prune; Prune Rust and Red Spider control; manurial trials on Prunes, Apricots, Currants, and Peaches; pruning tests of the Currant, and various trace element deficiency investigations on vine fruits, Apricots, Prunes, and Peaches. On the processing side, work has been done on the drying of Prunes, Apricots, Currants and Sultanas. The general survey of the Prune industry production problems is almost completed, and a similar survey of the Currant industry of the irrigation districts is in progress.

The report is for the year ending June 30 last. Mr. A. G. Strickland, Chief Horticulturist, was away in England in the early part of last year, and the report is signed by Mr. E. Leishman, who was the Acting Chief Inspector of Fruit and Orchards.

Cables—Monro, London

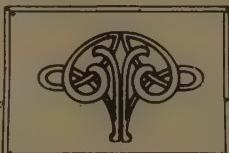
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TASMANIAN NEWS AND NOTES.**Fruit Juices.**

Fruit juices are now being extracted at the new plant installed by the Port Huon Fruitgrowers' Association, and some excellent samples of Raspberry, Strawberry, Red Currant, Cherry, and Black Currant juices have been prepared.

Central Packing Houses.

Under the Acquisition Scheme if the bulk of the fruit can be concentrated in central packing houses the packing and marketing of the crops will be facilitated.

Standardisation will be possible on a scale which has never previously been possible.

TASMANIAN APPLES.

Clean Second-Hand Cases For Interstate Trade Usable.

The regulations governing cases to be used for fruit imported into N.S.W. have recently been amended. Provision has been made for once-used clean second-hand fruit cases to be admitted, provided that all the original markings on the boxes, relating to growers' names, brands, and grade designations, are removed.

The importation of fruit into N.S.W. in second-hand cases is to be permitted for six months.

(Further Tasmanian News on Page 24.)

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HARVEY APPLE GRADER.
Double side, 8 bins, 40-case capacity, recent model, excellent order.
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New South Wales News and Notes

Murrumbidgee Irrigation Areas

LABOUR DISPUTE SETTLED AT LEETON CANNERY — RICE GROWERS' PROBLEMS — TOP DRESSING PASTURES — FRUIT CROP PROSPECTS — SOME WAR-TIME THOUGHTS.

(By Our Correspondent)

THE weather during December was favorable for the harvesting of one of the best crops of Apricots ever handled on these areas, and the cannery at Leeton was kept busy with heavy supplies of fruit, while large consignments were forwarded from Griffith to Sydney canneries.

Those growers whose fruit was earlier in ripening were fortunate to obtain very excellent prices as fresh fruit on the Sydney market, and although there is not a very large tonnage of fruit dried this season, the weather conditions have favored those growers who have dried portion of their crop, and some excellent samples of dried fruit, bright in color and fleshy in texture have been processed.

An unfortunate circumstance which occurred was the strike at the Leeton cannery, and which at first appeared to assume acute proportions. About 750 employees were concerned, and the strike originated over a disagreement as to the price paid for pitting the fruit, the workers demanding an additional 1d. per tray of 12 tins, which demand the management were not prepared to concede; following on this the demand was reduced to ½d. per tray, and this also was declined by the management, who as an alternative gesture offered a premium of ½d. for choice fruit packed by the girls, and a decrease in the number of operations of the girls who complained that they were called on to perform more work than in previous seasons.

Coming at such a period of the rush time, the strike was likely to have assumed a very critical position, but a settlement was ultimately arrived at through diplomatic negotiations, and work was resumed.

All negotiations were conducted in a sensible and fair minded manner, according to Mr. Williams' report, and the main points of issue were agreed to on the following three arrangements.

1. The company agreed to pay an increased rate for canning, which now stands at 2½d. per dozen tins instead of the former price of 2d., the company, however, withdraws its compromise to pay the extra halfpenny on the choice grade of fruit, but they will reduce the number of grades of fruit from seven to five.

The girls, however, finally decided that they desired to work

on the full number of grades, and the company agreed to the reintroduction of the full amount, and the girls on their part have bound themselves to accept the 2½d. per dozen cans of all grades.

2. A new clause is to be inserted in the existing agreement, under which the Union binds itself to give seven days' notice in writing of any request for alteration or variation of the award, this clause not having been inserted in the previous agreement.

When the manager, Mr. Williams, was questioned as to the extent of loss incurred owing to the strike, he replied: "Although the strike has lasted three days and a half we have not turned away a single hundredweight of fruit, the usual full supply has been placed in the cool store by the growers, who themselves acted as lumpers in the chambers, and they were assisted by members of the staff, who were not involved in the strike."

Mr. Williams paid a tribute to the assistance given by Mr. Dalton, State President of the N.S.W. branch of the A.W.U., and Mr. John McNeill, State General Secretary and Federal President of the same Association, who had done much to solve the disagreement and help the management to a satisfactory conclusion of the matters in question.

:: :: ::

THE RICE GROWERS of the Area have not had an altogether satisfactory season this year, from the reports which have come in from time to time. In several instances it has been necessary for growers to replant portions of their crops, and as much as forty acres on one patch had to be resown.

The adverse factors working against the growers were the summer grass, which made a particularly vigorous growth this year, and the attacks of wild ducks, which also took a severe toll of the rice, while the infestation by the "caddis fly" which at times appeared likely to be the most serious menace, has all mitigated against the growers' efforts.

Apparently the only way to fight the attacks of the caddis fly, is to drain the bays of rice water, and this may act adversely if the weather is as intensely hot as it has been during the past few months. However, despite all adverse conditions, some good crops have been

harvested, and it is to be hoped that in the final count the growers will not find themselves as badly hit as is thought in some cases.

The large area farmers on the holding which surround this Area, have had a menacing time with severe fires breaking out all round their holdings, and the lurid glare at night of these fires around Benerembah, Warburn, Pine Vale and other centres, has shown that the lot of the men on the land is not always to be envied.

The many willing helpers who rushed to assist their neighbors has been a consoling circumstance to those who have lost heavily, and a close lookout has been kept by all in the endeavor to detect the outbreaks before they assumed too great a proportion, but this has not always been possible.

A considerable shrinkage in the wheat has been noticed by many growers, and the long dry spell will probably prevent a particularly high standard from being obtained, specially where rust has shown up.

The pastures and lucerne blocks on the large irrigated holdings have done well, and it is a pleasure to see the large sweep of vivid green with the purple tinge showing, as the crop reaches the stage for cutting. Some wonderful self-sown crops of Wimmera ryegrass have been harvested, and the large stacks of bailed and pressed hay make a well-built and imposing stack of fodder for Winter use.

Farmers are being reminded by the Agricultural Instructor to top dress their pastures early in March. Permanent pastures should receive 2 cwt., and temporary mixtures 1 cwt. of super-phosphate per acre.

Elberta Peaches.

There appears to be a very fair crop of this variety, and the fruit is of good size and quality, some growers are already forwarding the fruit to the fresh fruit market, but it will be some time yet before the canning Peaches are fit to handle.

The canning Peach crop will probably be fairly light, owing to the shortage caused by frosts early in the season, and also that a large number of trees have gone out altogether owing to the effects of the past heavy wet Winter and subsequent flooding.

On one farm alone 1,100 trees are dead, and on very many others a large number of trees are dead or dying. Almond and Peaches seem to have been af-

fected worse than Prunes and Apricots, although there are cases where these two varieties are also seriously affected.

:: :: ::

The Sultana crop was very light, and the Currants only fair, but there appears to be a very fair crop of Wine Grapes on many holdings, and according to the statement of Mr. J. C. Thorne, chairman of the Wine Grapes Marketing Board, the entire crop of all varieties might reach the total of 13,000 tons.

Mr. Thorne, who has been to Melbourne to attend a meeting of the Wine Grapes Fixation Committee, stated that after deliberations, and at the unanimous request of representatives of the wine makers and the growers of wine Grapes, last year's figures have been accepted as a basis for Grapes purchased for bounty-eligible wines.

The price has been the same for the last three years.

:: :: ::

Should a heavy fall of rain occur in February, the position might be somewhat altered and the crop lightened, and this unfortunate circumstance has occurred in previous years. The skins of some varieties of Grapes are particularly thin, and even a fall of half an inch at a critical period of ripeness will cause considerable loss. Pedros seem to be particularly susceptible to weather conditions.

Table varieties of Grapes, principally Purple Cornichon and Ohanez, are only showing light crops, while in some cases the former variety suffered severely from frosts, and although the vines have made vigorous growth, the crop is lacking.

:: :: ::

Apple crops, particularly Granny Smith, which is the principal crop grown here are very poor, many farms not showing more than two or three fruits per tree, and many of these are poor and skin marked.

The red varieties of Apples have shown up better, and in some cases are carrying a fair crop. The climate on these areas is not favorable to the red varieties, which do not color too well, and most of the Jonathan and King Davids are sent to the canneries for jam.

The Jonathan of a hot dry climate does not show the crispness and juice content that it does in the colder climate, but the Granny Smith and Cleopatra seem to give the better results generally, but the present season is a disastrous one to the Apple growers of this area, and last year was very little better.

:: :: ::

A considerable boom in building has occurred during the past year, on both ends of these

You Can't Get Good Prices for Bruised Fruit

PROTECT YOUR FRUIT WITH

ANTI-BRUZE CORRUGATED FRUIT PADS

MADE IN TASMANIA

Obtainable from Leading Distributors throughout Tasmania

In the following Sizes and Quantities:

DUMP CASES—

SIDES (Plain or Vented)	17 x 14	500's
	17 x 13	500's
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CANADIAN CASES—

SIDES	17 x 10	1,000's
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PEARS—

SIDES	13 x 6	1,000's
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Also Combination Packs of:—

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(500 17 x 13)	(500 17 x 10)	(334 13 x 6)
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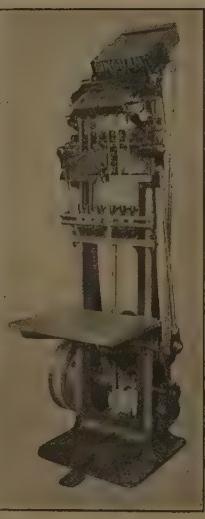
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Areas, Leeton and Griffith, and while the figures for Leeton are not to hand, those for Griffith assume large proportions. Buildings in Griffith for the past year totalled £64,752, of which amount nearly £30,000 represented new homes.

Woolworths have built a large building in the main street, and other shops are being reconstructed and added to.

The Griffith Producers' Co-op. Coy. are adding additions to their cool stores, and main stores, while a bulk store for the handling of their merchandise and implements has been completed.

The Italian residents of the district are building a large church at Yoogali, of concrete,

and when completed it will be a notable feature among the few buildings of that village, most of which are private homes.

:: :: ::

And yet we are at war, do the people of Australia fully realise the position, from the light-hearted way in which everyone goes about their business, and the seeming indifference of so many, it is often hard to realise that we are facing the greatest test that the Empire has ever faced, yet we drift carelessly on, evade the great issues which confront us, when we, as part of a great nation, should be making every preparation to face a stupendous struggle in which our very existence is at stake.

SYDNEY ROYAL SHOW.

Fruit Entries Close on February 16.

SULPHATE OF AMMONIA.

Price Increased by £2/4/- a Ton.

AT the forthcoming Royal Agricultural Show at Sydney at Easter there will be the usual fascinating attractions.

Fruit exhibits will be featured in many ways.

Entries close on February 16.

For the spectacular district collections of Apples and Pears (£200 in prizes in each class), judging will be on the following basis:—

Pomological Values.

Points.

Form—

Color, quality, uniformity, typical of pomological standards 10

Nomenclature 10

Grading and uniformity 20

Commercial Value—

Quality and commercial value of varieties 25

Freedom from fungus or insect pests 20

Staging Values—

General effect and color scheme 10

Neatness and alignment 5

Total 100

Other sections include: Apples and Pears in export cases; Apples, open classes, 2 doz. each of G.S., Jon., Romes, Delicious, Democrat, Stayman Winesap, Yates, and Macintosh Red; Pears, 2 doz. each of Jos., Packhams, W. Cole, W. Nelis, B. Bosc; Apples and Pears of main varieties in a condition to carry to export markets; Lemons and Grapes for export.

Classes are provided for various other classes of fruit.

NEW SOUTH WALES.

Pineapples, Passions, Bananas.

Pineapple harvesting on the Lower Tweed and at Macksville is satisfactory.

Passionfruit: There were good crops at Tweed Heads and Mullumbimby.

A number of growers around Macksville have decided against growing Passions; others are replanting.

Bananas filled out well at Tweed Heads, Brunswick, and Macksville.

WE are informed that by authority of the Commonwealth Government's Price Fixing body, the price of sulphate of ammonia to the consumer has been increased by £2/4/- per ton, which though substantial, is not nearly as great as it might have been had there been no local sources of supply of this now most important fertiliser. On enquiry we learn that if Australia were entirely dependent on imported sulphate of ammonia, the price would be several pounds per ton greater than it is. While there is not sufficient sulphate of ammonia produced in Australia for the whole of our requirements, there is nevertheless a sufficient tonnage to offset materially the greatly increased cost of imported material, and so the burden of the increased price is made as light as possible.

It is to the credit of local producers of sulphate of ammonia that they have not sought increased prices when they could justifiably do so, and the Government, mindful of the importance that sulphate of ammonia now plays in Australian agriculture and horticulture, have recommended the formation of a pool into which local and imported sulphate of ammonia will be placed, and the price averaged out. This pool, which will operate with the Government's consent, subject to review by the Commonwealth Prices Commissioner, ensures supplies of sulphate of ammonia being maintained at reasonable prices. Doubtless the price of sulphate of ammonia will require to be adjusted from time to time, but this is a matter for the Commonwealth Prices Commissioner.

Consumers of sulphate of ammonia, however great their concern might be at the increased price already mentioned, will be glad to know that no one is making a profit from the increase. It is, in reality, a contribution to the sulphate of ammonia pool, the formation of which we think reflects the greatest credit on all concerned.



CANNED APPLE JUICE

Increasingly Popular in U.S.A.

[Because of the problems facing the Australian Apple industry this season the following article, written by Messrs. D. K. Tressler and C. S. Pederson, of the New York State Agricultural Experiment Station (Geneva, N.Y.) will be found of particular interest.

These investigators have contributed much valuable information in many ways in regard to by-products from fruit. The article is as follows:—]

DURING the past decade an important all-the-year-round demand for bottled Apple juice has developed in U.S.A. Some of this juice is marketed in small bottles, but as yet most of the producers are packing the product in one-gallon jugs. While a container of such a large size is satisfactory for Autumn trade, it is felt that much larger quantities of this beverage would be consumed if it were offered in smaller containers. At room temperature Apple juice begins to ferment within two or three days from the time the jug is opened, whereas in a refrigerator this juice may be kept for as long as a week or ten days without spoilage. Smaller containers have a definite advantage in that they will fit into a modern electric refrigerator.

In a single decade the American public has become juice-minded.

During the past two or three years canned Apple juice has been packed in a small way. Where a flash pasteurized juice of high quality has been packed in enamel-lined cans, it has met a ready sale and has kept well during storage. Few packers as yet realise that special enamel-lined cans suitable for use with Apple juice are now available and are essential for retaining the flavor of a high quality product. Further, because of past failures, the packers have been slow to appreciate the fact that these cans are not corroded by Apple juice and that flash pasteurized, canned Apple juice will keep in good condition for a year or even longer. The enamels employed are the so-called "fruit," "berry," or "sanitary" enamels.

If the product is to be packed into transparent glass bottles, it is necessary to have one which will not deposit a mud-like sedi-

ment in the bottom of the bottle. Further, the trade seems to prefer a brilliantly clear juice in bottles. For this reason, it has been necessary to clarify and filter juice which is to be packed in bottles. This clarification, while it does not spoil the flavour of the juice, does weaken the flavour. Some persons say that the clarified juice tastes like diluted or watered juice.

"Natural" Apple Juice Now Possible.

Practically everyone agrees that the juice just as it comes from the press has more flavour than that which has been clarified and filtered by any of the better processes. The difficulty with natural (cloudy) juice has been that until recently there has been no satisfactory method of pasteurizing or preserving it. If the customary holding pasteurization procedure is employed, the juice soon deposits a heavy mud in the bottom of the container. Further, it loses its fresh Apple flavour and takes on a different flavour which is sometimes said to resemble that of Apple sauce. . .

On the other hand, if the natural (cloudy) juice is quickly heated to a temperature of 165 deg. to 175 deg. F., filled into containers which are immediately closed, inverted or turned on the side for three minutes,

and then quickly cooled, the product retains its natural fresh flavor and does not deposit any considerable amount of sediment in the container during storage. This process is commonly known as flash pasteurization and represents a distinct advance in methods of preserving not only Apple but nearly all other kinds of fruit juices. The procedure is applicable not only to cloudy juices but to clarified juices as well.

Flash pasteurization causes much less change in flavor than does holding pasteurization (the holding of the bottled or canned juices at a temperature of 170 deg. F. for 20 or 30 minutes). Further, as can be seen by the above brief description, the process is not only very simple but also very rapid. Its use eliminates the necessity of clarification by enzymes or by any other process.

Selection of Fruit Important.

One point which has been overlooked by many persons packing Apple juice is that if one is to obtain a product of good flavor, it is absolutely necessary to select sound fruit of the proper maturity and variety. Windfalls will not make good Apple juice. The juice will be of particularly poor flavor if it is made from Apples which have been allowed to lie on the ground for even a few days. Neither over-mature, soft-ripe, nor immature Apples yield juice of good quality.

In general, tart Apples give juice of much better quality than

do some of the better grades of eating Apples such as the McIntosh and the Cortland. McIntosh juice should be blended with the juice from tart Apples in order to produce a juice which will be pleasing to the average person. Apples which have been in storage for some time should not be used as the resultant juice will not be of full flavor.

Properly made Apple juice is a delicious beverage.

FRUIT PRESERVING INDUSTRY.

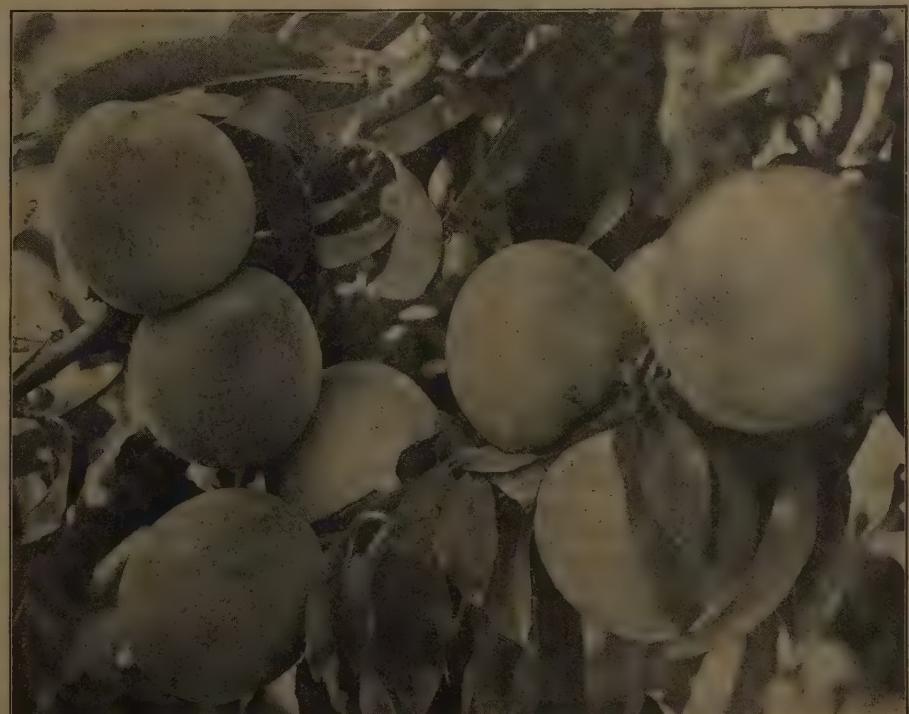
Increased Wages.

Following an agreement reached in compulsory conference, and approved by Judge O'Mara, it was announced in the Arbitration Court on January 5 that a general rise of 3/- had been granted in the fruit preserving industry. The announcement was made by Mr. P. J. Clarey, representing the union.

The agreement fixed a minimum wage of £4/4/- for adult males, with a 4/- industry allowance, and £2/6/6 for female adults, with a 2/6 industry allowance. Wage rates adjustments will be made half-yearly. Hours are fixed at 44 a week.

The award operates from December 7, and lasts for three years. It will cover up to 15,000 employees in Victoria, New South Wales, South Australia and Tasmania.

Peaches
Grown
Under
Irrigation.



Goulburn Valley News and Notes

Canning Fruits and Prices . . . Pear Equalisation Scheme Meetings of Fruitgrowers

By Our Correspondent.

PARTICULARLY FAVORABLE weather conditions prevailed in the Goulburn Valley for the harvesting of the Apricot crop, which was nearly three weeks later than usual in ripening.

The crop turned out very satisfactorily. The fruit was of good quality and size, although a fair portion of the crop was used for jam purposes owing to rust marks caused by weather conditions.

Both growers and canners have had three busy weeks, and the canneries have now completed processing the Apricots, the last deliveries being made about January 20.

W.B.C. Pears.

Harvesting of W.B.C. Pears has commenced and the first deliveries were made to the canneries on or about the 22nd inst. The quality of the Pears is particularly good, and free

from Codling Moth, in fact, it is the cleanest crop of Pears grown in the Valley for a number of years, which is due to the spraying precautions taken by the growers on the advice of the Advisory Committees. Good prices have been received for the first consignment of Pears sent to the Melbourne and Sydney market, but the bulk of the crop has been sold to the canneries by contract, and it is expected the Pears will be delivered during the next three weeks.

Peaches.

Peaches are late this year, and the mid-season varieties are light, but deliveries of the early varieties of Levis Cling and Pelora will commence about the end of the month. For the past four years the picking and delivery of the Levis Cling was completed by January 20, followed by Pelora, Sims, Phillips,

Goodman Choice and Golden Queen, with the Pullars Cling coming in about March 1, which comprises by far the great bulk of the tonnage delivered to the factories.

Prices for Canning Peaches and Pears.

During the month prices were fixed by the Commonwealth Sugar Concession Committee.

The prices are as follows (per ton canning):—

W.B.C. Pears	£12
Packham's Pears	£11
Peaches (clear centres) . . .	£12
Peaches (red centre)	£11
Peaches for Jam quality . . .	£9

Although the prices are satisfactory from the growers' point of view, yet owing to the rising costs of production and the lighter crops, that will be gathered, there are no fortunes to be made.

Plums.

Metropolitan factories have raised the price of Plums from £7 per ton delivered to £10 per ton.

Large British Orders.

Interest has been created by the information received that substantial orders from Britain for supplies of fruit pulps and jams have been obtained by Australian factories.

The fruits concerned are chiefly berry fruits, Black Currants, and Apricots.

Prices are reported to be more favorable than in recent years. The orders will mean that factories will be cleared of this year's surplus pulp and jams. The business will be of great assistance to the Australian fruit growing industry.

The demand for jam on the Australian market is also most satisfactory.

Factories are paying higher prices this year for fruits for jam and canning.

Export Pears.

Equalising Prices.

In an attempt to solve the difficulties of marketing the export Pears this year, caused by the uncertainties affecting shipping space, and the Federal Government's compulsory acquisition of the Apple and Pear crop from March 1.

At a well attended meeting of Shepparton Fruit Growers' Association, held at Shepparton East last Monday, when they unanimously resolved to adopt a voluntary equalisation of prices scheme.

The President (Mr. Norman Fairless) explained to the meeting that Messrs. S. J. Perry & Co. would probably be able to fulfil a considerable proportion of their contract, as it was believed that shipping space would be available to take a quantity of export Pears to the United Kingdom.

Pears that were so shipped would be paid for under the

contract rate of £13/5/- per ton. Packham Pears delivered to the cool stores before the closing date, but which could not be shipped, because of lack of space or packing delays, would be accepted by the Cannery at £11 per ton.

Josephine Pears which would bring £13/5/- per ton if exported would, if left in store before the closing date, go into the Federal Acquisition Scheme at 3/- per case.

The meeting unanimously and without demur agreed to a proposal virtually representing a voluntary equalisation scheme, under which growers agreed to pool all the returns on Pears intended for export.

Irrespective of whether all or none of their fruit was shipped at the higher figure, individual growers will thus receive under this collective scheme prices representing the average between the export and canning and export and acquisition prices respectively. Announcing the decision, Mr. Fairless said that the growers agreed it was the only fair thing to do. There was no objection because the scheme was scrupulously fair to all.

Northern Victorian Fruit Growers' Association.

At a meeting of the Northern Victoria Fruit Growers' Association, held at Kyabram, the President (Mr. W. Young) announced that the Apple and Pear Board had approved the exemption of the Goulburn Valley from its proposals to take appraisements of the Pear crop on the trees.

Mr. Young explained that Board Inspectors would not visit Goulburn Valley orchards and estimate the crops on the trees, of which a 75 per cent. allowance would be made.

The Goulburn Valley Pear growers were in a more fortunate position than those in many other districts, and accordingly were in a position to wait for the payment of advances until the fruit was actually in the stores, under the Federal Acquisition plan, which comes into operation on March 1.

In the meantime it was expected that a considerable portion of the crop would be exported under the usual contract conditions.

The meeting approved of the equalisation of prices scheme in which growers would pool their returns on export Pears, including fruit sent overseas and that intended for export but retained in Australia.

The scheme, which was formulated by Mr. W. Young and tentatively approved by the Association's Pear Committee, was outlined in detail at last week's meeting of the Shepparton Fruit Growers' Association.

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by

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SULPHATE of AMMONIA
is INDISPENSABLE in a
WELL-KEPT ORCHARD

Premier's Visit.
Peach Tree Losses.

It was announced to-day that arrangements had tentatively been made for a visit to the Goulburn Valley of the Premier (Mr. Dunstan) and the Minister of Lands and Forests, Mr. Lind, in February.

The Premier's attention will be drawn to the loss of Peach trees in the Shepparton district in last year's record Winter rains, and suggestions will probably be advanced to take steps to avoid a repetition of the experience.

Evaporated and Canned Apples

Huge Developments in Nova Scotia

After protracted negotiations, all but two Apple manufacturing (evaporated, dehydrated and canned) entities in the Annapolis Valley of Nova Scotia have reportedly agreed to the terms of the Dominion Government and will process and deliver to the Government 1,500,000 barrels of Apples from the 1939 yield in the valley (states the "Canadian Food Packer"). Stipulated are the prices the manufacturers are to pay the Apple growers and what the Government is to pay the manufacturers.

It is understood that the 85 per cent, of the Annapolis Valley Apple crop, which would ordinarily go to England as raw

fruit, will largely be shipped there as evaporated and canned Apples, because of the exigencies of war.

The Nova Scotia Department of Agriculture is co-operating with the Dominion Department of Agriculture in the campaign for Apple manufacturing as a means of overcoming the Apple glut in Nova Scotia and compensating the growers for the approximately 3,000,000 dollars they paid during the growing season on fertilizers, insecticides, spraying equipment, labor, etc. The outlook is that the volume of Apples manufactured in Nova Scotia from the 1939 yield will establish a new record.

CIDER IS WHOLESOME.

Recently a well-known fruit-grower who likes his glass of beer called instead for a glass of cider. He liked it and said, "No more beer for me. It's cider every time now."

Cider is a most healthful drink. It contains all those vitamins so dear to dietitians.

Taken in moderate quantities cider is refreshing without being intoxicating; in larger amounts it produces elevation without giving a "head" next day—which can be said for no other drink except champagne.

At present prices cider costs a little more than beer, but is much more enjoyable. If produced on the same scale as beer it could probably be turned out at a similar price.

TRADE WITH CANADA.

Compiled by the Department of Trade and Commerce, Ottawa, Canada.

OTTAWA.—Australia supplied Canada with 263,750 pounds of canned Peaches and Apricots, 209,201 pounds of canned Pineapples, 27,746 pounds of canned Pears, 20,068 pounds of other canned fruits, and 21,560 pounds of fruit pulp in the month of August, 1939.

OTTAWA.—Canada's Minister of Agriculture, Hon. James Gardiner, demonstrates at first hand the lusciousness of Canadian Apples as part of his campaign to make Canadians eat more of this fruit. In the anteroom of his office here he keeps a barrel of fresh Canadian Apples and visitors are invited to help themselves when waiting to see the Minister.

N.S.W. APPLE JUICE APPRECIATED.

A Tasmanian visitor to Sydney recently stated he had sampled "pure Apple juice" prepared in N.S.W. and said it was the best soft drink he had tasted.

Dried Fruits Notes

STH. AUSTRALIAN DRIED FRUITS BOARD.

At the December meeting of the St. Aust. Dried Fruits Board, Mr. Hugh Crawford (Deputy Chairman), congratulated Mr. G. A. W. Pope on his appointment as chairman of the Transport Control Board.

Renewals of Dealers' Registrations and of Packing House Registrations for the year ending December 31, 1940, were approved, and Secretary reported that in respect to packing houses there were no outstanding applications.

The recommendation of the Consultative Committee in regard to allowance of export credit on Prunes diverted to jam manufacturing, was approved after consideration of letters of the N.S.W. Board.

Minute of the Crown Solicitor advising conviction of a Renmark grower for unlawful trading, when a penalty of £5 and costs was imposed. Noted.

In regard to inspection of dried fruit in Queensland, a copy of the Bill recently passed by the Queensland Parliament providing for inspection of dried fruits in Queensland was submitted and Secretary was directed to write to the Queensland Minister of Agriculture conveying the Board's appreciation of his action in complying with the requests of the Consultative Committee.

The Secretary submitted summary of proposed amendments to regulations. Consideration was deferred until next meeting of the Board to enable the members to study the proposed amendments.

DEHYDRATION OF FRUIT.

It is confidently believed that the market for dried Apples in Australia has by no means been fully exploited. Dehydration will save much fruit that will otherwise go to waste.

Some six years ago three groups of growers, Woorinen and Nyah (Victoria) installed dehydrators, and their venture has proved profitable.

DRIED FRUITS.

Increase in Prices.

Increased maximum prices for dried fruits sold by the Australian Dried Fruits Association have been approved by the Commonwealth Prices Commissioner. The following new rates will apply:

	To	Increase	Operate
Fruit.	Per lb.	From.	
Apricots . . .	0½d.	Jan. 12	
Nectarines . . .	0½d.	Jan. 12	
Peaches . . .	0½d.	Jan. 12	
Pears . . .	0½d.	Jan. 12	
Prunes . . .	0¾d.	Mar. 1	
Currants . . .	0½d.	May 1	
Sultanas . . .	0½d.	May 1	
Lexias and			
Waltham . . .	0½d.	May 1	
Seeded Raisins	0½d.	May 1	
Muscatels . . .	0½d.	May 1	

AUSTRALIAN DRIED FRUITS.

British Purchase Expected.

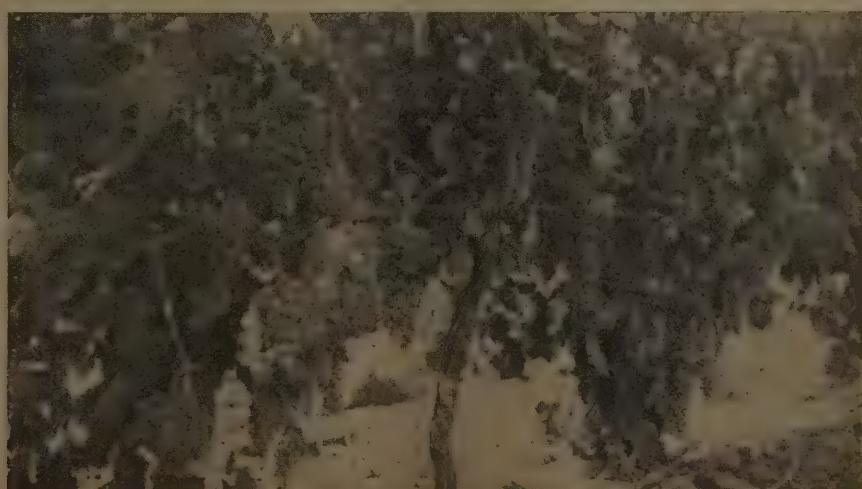
CANBERRA, January 15, 1940.—It is expected at Canberra that the British Government will buy the whole of the Australian dried fruit crop this season. The 1939 output was purchased by Great Britain after it had reached there, but this year the position is more complicated because of wartime transport problems.

The price being mentioned in negotiations is stated to be satisfactory to Australia. Early action by the Federal Government to acquire dried fruit from the new season's crop is anticipated.

N.S.W. DRIED FRUITS BOARD.

As all the sitting members of the N.S.W. Dried Fruits Board were returned unopposed, viz.: Messrs. G. J. Evatt (Chairman), E. J. Hudson (Yenda); L. B. O'Donnell (Curlwaa); Thos. Steele, M.L.C. (Young); and F. C. Cox (Griffith). The Secretary is Mr. G. A. Try.

The appointments are until February, 1943.



Typical Grape Crop
in the Murray
Valley.

CORK INSULATION

"ZERISTO" Brand



Cork Board — Cork
Sectional Pipe Covering — Granulated
Cork.

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The Meaning, Possibilities and Limitations of Co-operative Marketing

What Co-operation Can Do to Benefit Producers

(Continued from January issue.)

[In our last issue we published the first portion of a Bulletin on co-operative marketing received from the Agricultural Experiment Station, Pullman, Washington, U.S.A. This deals with principles which are capable of being translated into action in any part of the world. The aspects dealt with last issue included—(a) The meaning and significance of marketing services; (b) What is co-operative marketing? (c) Different types of co-operative marketing organisations. The theme is continued hereunder.]

What Can Co-operative Marketing do to Benefit Producers?

THE MOST CONVINCING answer to this question is found in what successful co-operative organisations in this State and elsewhere have done. It is, in brief, that they have performed some or all of the nine marketing services listed previously, either better or cheaper than they would otherwise have been performed.

The term "cheaper" as here used needs some explanation. It means that the co-operative organisation must perform the middlemen marketing services for less cost than the amount of the total gross "margin" or "spread" that would otherwise be taken out by private middlemen operating for profit. Where middlemen are in competition this "spread" tends to equal the operating costs of fairly efficient middlemen. The most efficient middlemen generally take about the same margin as the "fairly efficient" and therefore make profits. The least efficient suffer losses and finally go into bankruptcy. The number of private middlemen ventures which do end in failure is clear proof that co-operative enterprises to succeed must be comparable in efficiency with the more efficient private concerns.

Co-operatives have not only the possibility of performing the marketing services cheaper than they would otherwise be per-

formed, but of performing them better. In this respect the first great possibility is in better grading and standardising. Consumers to-day want graded and standardised goods. Some co-operatives have made striking successes in meeting this demand. For the present let us note one instance of success in meeting this demand outside of this State.

The California Fruit Growers' Exchange which markets California citrus fruits is a standard example of a successful co-operative. Its success is due to efficiency in many respects, but important among them has been the development of high standardised grades for its products. Large losses of Oranges were occurring from spoilage in transit. Studies were made by the United States Department of Agriculture, under the direction of G. Harold Powell (later for many years manager of the Exchange), which showed that this spoilage was primarily due to the fruits having been bruised or scratched before being shipped.

To prevent such bruising and scratching and maintain a high standard for its product the organisation adopted a system of using hired picking crews, carefully supervised by foremen, to pick the fruit, rather than to let the members do their own picking.

In this way, together with similar care in grading and standardising, the organisation created confidence in its slogan "Uniformly good Oranges," and upon this basis was able by advertising and by otherwise improved methods of selling, to enlarge the demand and thus increase prices.

On the subject of advertising in relation to grading and standardising there is probably no better statement than the following from the California Fruit Growers' Exchange:

"Primarily, the function of our advertising is to increase the consumption of citrus

fruit. To do this it is necessary to have a brand around which we can build our advertising arguments. This brand is the consumer's protection. It is his guarantee as to the quality of the fruit. In other words, we want him to feel that all he needs to know about an Orange or Lemon is that it is 'Sunkist.' We must make the consumer realise that the name 'Sunkist' on an Orange or Lemon means just what the Sterling mark means on silver.

"Our advertising will create in the minds of the consumers a public consciousness of the food value of Oranges and Lemons. This can only be done by maintaining the highest possible standard of quality, for unless an article has quality, it cannot be successfully advertised.

"The permanent prosperity of the citrus industry depends on getting a sufficient number of people to use Oranges and Lemons, and this can most thoroughly and economically be accomplished by giving the public the reasons why they should use them and suggesting to them the various ways in which they can be served. Advertising is not a mysterious thing.

"It is simply telling the people the truth about the thing we have to sell and telling them through those channels in which they have confidence and to which they are accustomed to look for information and guidance."

Some commodities offer large possibilities of having their consumption increased by advertising. Others, such as wheat, do not. But in all cases grading and standardising offer other advantages. Outstanding among these are the following:

(1) Freight charges are saved by not shipping the cull products.

(2) Often the culs, dockage, etc., can be utilised at the shipping point for feed, when, if

shipped they would be wasted.

(3) Provided there is sufficient volume, the grading can be done cheaper at the country point.

(4) Graded commodities invariably sell at better prices, often at very much better prices.

(5) Reputations are built up for the goods which are uniformly standardised as to grade, and these reputations result in such products outselling other products which are equally good but without such reputations.

(6) The practice of grading and selling by grade is a strong incentive to farmers to produce high-grade commodities.

Of highest importance is the historical fact that no other system of marketing has so brought farmers to see the importance of uniformly grading and standardising their products, of maintaining their grades, and of selling strictly on the basis of grade, as has co-operative marketing. And no other system can to the same extent assure the farmer producer that he will get the full benefits to be derived from the grading and standardising of his products as can co-operative marketing.

There are frequently possible large gains through co-operative methods in connection with the other services: assembling, packaging, storing, processing, transporting, financing, distributing, and selling. It is to be understood that all of these possibilities do not exist with all commodities, and also that these beneficial results do not follow of themselves, but only with efficient management.

These possibilities of benefits may be briefly summarised as follows:

Assembling:

(1) Better assembling, particularly for such products as fruits, by bringing together the particular assortments as to varieties, size, etc., which buyers want.

(2) Cheaper assembling, by larger volume and avoiding expensive duplication of assembling facilities.

Packaging:

(1) Better packaging, by making possible a closer, study of the wishes of buyers and consumers, and by having packaging done under the supervision of experts.

(2) Cheaper packaging through quantity buying of packaging materials such as sacks, box shooks, etc., and by making fullest use of packaging facilities.

Storing:

(1) Better storage by making possible facilities which private capital from a speculative motive will not provide.

(2) Cheaper storage by making unnecessary expensive dupli-

"HILLMAN" ORCHARD STRIP PLOW

Double Furrow

A sturdy, strong plow equipped with reversible discs to enable the operator to plow up to, or away from the trees. Operated by a single lever and with nothing to catch branches of trees. To facilitate the movement of the plow around the orchard the discs are movable and lift clear of the ground.

Further particulars apply . . .

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Implement Manufacturers

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The steering arms are drop forged from the best mild steel and the main wheels are equipped with ball bearings.

Two medium horses can work this machine all day without tiring. A machine may be obtained for a trial at any time.

Meaning, Possibilities and Limitations of Co-operative Marketing (Cont.)

cation of facilities beyond actual needs.

Processing:

(1) Better processing through securing better raw material for the reasons explained under grading. Thus, co-operative creameries frequently make better butter than private competitors because they are able to impress upon their members the importance of a high grade raw product, while the private buyers for fear of offending their customers pay alike for all kinds of cream, and the customers having nothing to gain from delivering a high quality product become negligent.

(2) Cheaper processing by being able to take full advantage of the lower costs which come from having large volume, as illustrated by creameries, and by passing the full benefit from this on to farmer producers.

Transporting:

(1) Better transporting, because a large organisation can by keeping a close check on railroads, get services which a small shipper cannot.

(2) Cheaper transportation by being able (a) to ship full car lots; (b) to collect damage claims which a small shipper cannot collect; and (c) by united action to get more favorable freight rates for the product.

Financing:

(1) Better and cheaper financing by uniting credit resources and by substituting sound business methods of financing for such undesirable methods as cash advances by buyers, store credit, etc.

Distributing:

(1) Better distributing by substituting scientific distribution based on full information for a hit and miss method equivalent to giving products a joy ride to some point and then seeing how it will come out.

(2) Cheaper distributing by making unnecessary an expensive duplication of facilities for securing information which forms the basis of distribution, etc.

Selling:

(1) Co-operative selling by efficient salesmen makes possible the sale of the crop for its full market value. Individual farmers with a lack of market information or weak in bargaining power frequently do not get the full market value. This is truest with commodities whose market values are not well known, such as fruits. It is least true of commodities whose market values are well known and freely traded in, such as wheat.

(2) Co-operative selling makes possible enlarging the demand, and prices, by attracting buyers through offering them goods assembled in better varieties and groups, and better graded, standardised and packaged.

(3) Co-operative selling makes possible enlarging the demand, and prices, for certain classes of goods by means of effective advertising. Advertising to be

effective must have standardised quality and large quantity of the commodity as well as a commodity of which the consumption can be increased.

(4) Co-operative selling makes possible "orderly" distributing and selling. Particularly is this important for perishable commodities. Co-operative marketing makes possible the development of all possible markets, even those which are not profitable at the beginning. It makes possible a better feeding of all markets instead of starving one and glutting another. It makes possible "stabilising the market" by offering goods at carefully calculated prices on the basis of supply and probable demand, by diverting excess quantities of such goods as Strawberries to canneries, and in some instances by guaranteeing prices to dealers against future decline. It cannot eliminate risk and speculation, because these are inherent in "supply and demand." It is not a substitute for selling, and to sell one must please his customers.

What are some Things Claimed for Co-operative Marketing Which in Fact it Cannot do.

While co-operative marketing has large possibilities of benefiting farmers by performing the nine marketing services previously listed, either better or cheaper than they would otherwise be performed, it has but slight possibilities of benefiting farmers by arbitrary monopolistic price fixing. The belief that organisation does offer farmers large opportunities for such price fixing has led to so many failures, it is so persistent among the uninformed, it has been so much exploited by demagogues for selfish reasons, that its removal is essential to a proper understanding of the actual possibilities of co-operative marketing.

Another claim sometimes made for co-operative marketing is that it will enable all farmers to make profits. That it cannot do in the long run, because even if co-operative marketing results in much higher returns to farmers, the secondary result will be that the best farmers who are producing most economically, and therefore making profits, will enlarge their production until they produce so much of the product that its price comes down to a point where the farmers producing by inferior methods or under natural disadvantages cannot compete. Land prices also will be raised by competitive bidding. Co-operative marketing cannot assure everybody of profits. Profits in agriculture will always be only for the efficient.

Ways to Success in Co-operative Marketing.

- Organise for the purpose of effecting greater economy and efficiency in the marketing system, and not with the idea of effecting a monopolistic trust to exploit consumers.

2. Recognise that there are certain general principles applicable to all products and communities, and also certain differences which cause each commodity and each community to have different problems. In planning your organisation take full consideration of the peculiarities of the product to be marketed.

3. Work out a definite plan of selling and performing the other marketing functions before starting operations, and be reasonably sure that the plan will work.

4. Keep in mind that marketing presents important problems of financing, and see that provision is made for these financial needs.

5. Keep accounts straight and insist that the organisation take its members into its confidence. Morale and loyalty cannot be kept up by deceiving members or keeping them in the dark about financial matters.

6. Employ expert help, but do not neglect to take a personal interest in the organisation. Organise and deputise, but also supervise.

7. Remember that every individual cannot have his way in everything. Be loyal even though some things are not done as you would do them. This is essential in all co-operative undertakings.

8. Be reasonably sure that your system is right before you start, and then do not be enticed away from it by small temporary advantages offered on the outside.

9. Remember that wise men learn from the experience of others. Existing successful co-operative organisations are glad to lend a helping hand to others. No forms of contracts or articles of incorporation are reprinted in this bulletin because almost any of the existing Washington co-operative organisations will send you a copy of its forms on request. These organisations will furnish other valuable information also. Profit by what they have learned. You will then be in a position to improve upon their practices.

10. Remember that intelligent co-operation pays. History proves it.

11. A good co-operator is a good citizen and a good neighbor. He helps improve his community.

Victorian Crop Prospects

HORTICULTURAL CONDITIONS during January are reviewed in a statement issued by the Department of Agriculture of Victoria.

The lower average temperatures which have prevailed this season have been reflected in the later development of stone and vine fruits. In the case of the dried vine fruits this may prove a distinct disadvantage unless very favorable drying weather is experienced for the remainder of the season.

On the whole, good average crops of all vine fruits should be secured in the irrigation districts, but in the areas dependent on rainfall the crops are rather lighter than usual as a result of the shortage of rods at pruning time. A good rain would be welcome in those areas. In the irrigable areas Oidium is apparent wherever sulphuring has been neglected.

Citrus crops of all kinds in the Mildura and Swan Hill districts promise to yield well next season. Mandarins at Swan Hill will not be quite as heavy as other crops, but Lemons, Mandarins and Grapefruit at Mildura, although not as heavy as Navels and Valencias, will be well up to average. Citrus crops in the Rochester areas probably will be 20 per cent. below normal, with Lemons much lighter.

Except for the appearance of Shot Hole of stone fruits, particularly in Apricots, the deciduous tree fruits are remarkably free from pests and diseases. Codling Moth has so far been less difficult to control, fewer sprays being required compared with the same period in the past two seasons. Good crops of Apricots were harvested in the Goulburn Valley and a record crop in the Quantong district. The Apricot crop in the Geelong district was 20 per cent. below normal, and much later than usual, but of good quality.

During January the harvesting of Williams Pears commenced and a very heavy crop is reported in the Quantong irrigation areas. In the Metropolitan areas both Apple and Pear crops are variable. The Packham crop in the Shepparton district is good and well up to size for this time of the year.

Herbert Wilson Pty. Ltd.

WHOLESALE FRUIT MERCHANTS
AND COMMISSION AGENTS

Nos. 1 and 10, Wholesale Fruit Market, Melbourne.

Accredited Agents for Victorian Central Citrus Association
and Affiliated Association.

City Telephone: F6444.

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Bankers: National Bank of Australasia (Western Branch), Melb.

• Items of Interest from Tasmania •

APPLE AND PEAR CROP DEVELOPING WELL — PEST CONTROL — THE CASE QUESTION — APPLE AND PEAR ACQUISITION SCHEME DISCUSSED — FEDERAL MARKETING POWERS.

(By Our Correspondent.)

WEATHER CONDITIONS in the North have been favorable to the growth of both Apples and Pears. There is a bit of Black Spot showing mostly on the Pears, and some orchards got hit by hail. Last week the weather was very warm but a thunderstorm, accompanied by a good rain freshened things up and should maintain growth for a considerable time.

The assessors under the Acquisition Scheme have made good progress with their work, and appear to be doing their work thoroughly and conscientiously.

Nothing definite is known publicly about what space will be available for oversea shipments from the Tamar, so growers are still in doubt what provision to make for the coming season.

Codling Moth does not appear to be very prevalent, but may show out in February. There are some Canary Fly in practically all orchards, necessitating the inclusion of nicotine with the lead sprays. The general appearance of most orchards is good.

In the South the season remains cool and rather overcast. Black Spot is rather more prevalent than last year, which is to be expected after such a wet Spring and early Summer. Moth and Canary, also Red Spider, appear to be less troublesome than usual, probably the moist, cool weather has checked them.

Most growers are including nicotine in the last arsenate spray to catch both Canary Fly and Red Spider.

Maturity of the fruit is a little later than usual. Most varieties of Apples are carrying fair

crops and some are being thinned.

Pears are a bit lighter than last year on the average, but some varieties needed thinning in places. All varieties of both Apples and Pears have made good growth to date.

The Case Question is exercising the minds of growers, as in the absence of any official information they don't know how many to get in.

Efficient help is going to be hard to get during the harvesting period, in fact, the position is acute.

Overseas buyers are operating conditionally on space being available, the prices being a little higher for most varieties than last year.

The assessors under the Acquisition Scheme have a pretty big job on in the Southern districts, but have made good progress. The State Sub-Committee is doing its best to get all details arranged in time for March 1; they have a very difficult task and from the nature of it there will be a lot left to be desired. I know of one fruiterer who also has an orchard which supplies his shop and he will have to pay someone else a commission to sell him his own fruit.

Varietal Pools

will be very unjust to the man who grows oversea varieties such as Sturmers (which sell better in England than Delicious) and Dunns, which are usually in demand for the Continental market; these varieties will probably be kept off the interstate market arbitrarily in order to create an artificially bare market for Delicious and Grannies, which will then probably be able to pay a dividend.

Probably Cox Orange Pippin will suffer the worst hardship, as they are a favorite variety in London, but don't realise their value on the interstate markets.

It should have been one pool or market all varieties without favor.

At a recent meeting of growers Mr. T. D'Alton (Minister for Agriculture) stated that the Board is allowing exporters to the East 11d. per case commission. Surely there is some mistake, as it could be done for half the amount.

I hope the commission allowed on interstate fruit and oversea is a little less generous, or there won't be much left for the growers.

Federal Marketing Powers.

I see that the Federal Government is going to reintroduce the subject of extending their

powers over interstate marketing by referendum. It was turned down by a large majority last time and I should think will be rejected by a bigger majority still next time. What is required is a little less interference with trade, not more.

I read with interest the suggested alternative to the present Acquisition Scheme put forward by the Orange Producers' Society; they also consider the present scheme inequitable and unworkable. The fact is that no scheme which interferes with the free distribution and sale of goods can be equitable, someone's interests will always be prejudiced to benefit someone else.

The O.P.A.'s scheme anticipates a 3 million surplus, consisting of those varieties which have shown the lowest net return, but who is to decide? and which market is to be taken as a criterion? If the London market, then Sturmers come above Delicious, if the Indian market then Rokewoods come high in the list, while China likes French Crabs. Evidently our friends can't see beyond the Sydney market. I don't think many of their Delicious brought 25/- . The New Zealand scheme seems to me to be the most business-like and free from local jealousies and injustices.

20/1/40.

Tasmanian Orchard Notes

Orchard notes for Tasmania are to hand from the Department of Agriculture, under date January 22, 1940:

Orchard Pests.

In spite of the wet conditions in the Spring, Black Spot is not so prevalent as would be expected, except in neglected areas. The season experienced demonstrates the ability of the careful grower to control this disease even under the most adverse conditions, and the majority of the crops of both Apples and Pears are either clean or only carry a light infection.

There is no doubt that the stationary spray plants which are now installed in most of the commercial areas, besides facilitating application, also give greater efficiency of treatment from the periodic viewpoint.

Summerleas Horticultural Station.

The item for the purchase of this property has now been passed by Parliament, and a commencement will be made to extend the experimental areas.

A Field Day was recently held when members of processing firms, Small Fruits Board and growers were enabled to see the work in progress, covering the selection and breeding of berry fruits and vegetables. The area is ideally situated at an altitude of 1,000 ft. on the S. East slopes of Mt. Wellington, and comprises a rich red basaltic soil. The Hon. the Premier (Mr. R. Cosgrove) and the Hon. the Minister for Agriculture (Mr. T. D'Alton) welcomed the visitors, who were then conducted over the property by the Chief Horticulturist (Mr. P. H. Thomas) and afterwards entertained at tea at which several of the new types of Strawberries were served.

Fruit Juices.

The new plant installed by the Port Huon Fruitgrowers' Association is now in operation,

and some excellent samples of Raspberry, Strawberry, Red Currant, Cherry and Black Currant juices have been prepared. It is the intention of the company to develop this trade with the popular lines, and most types of fruits and vegetables can be treated.

Apple and Pear Acquisition Scheme.

Returns under Form B National Security Act, detailing the particulars of the respective areas are now to hand and the Horticultural Division of the Department of Agriculture is carrying out an assessment of the crops throughout the State. In doing this, a complete census of the Apple and Pear industries will be undertaken and reliable information in regard to areas and varietal production collated. From the returns received, approximately 2,500 orchards will need to be visited.

Packing methods are undergoing a complete overhaul, and most of the prominent firms and co-operative companies associated with the industry are erecting packing houses in the large centres of production.

It is quite evident that the task of the State Board in marketing the crops will be considerably facilitated if the bulk of the fruit can be concentrated in central packing houses, and such action will enable standardisation of the crop to be attempted and improve the packing and presentation on the markets.

ORCHARD TAX IN TASMANIA.

9d. Per Acre Proclaimed.

On the recommendation of the State Fruit Board, a tax of 9d. an acre has been proclaimed for the year 1940.

The maximum is 2/- per acre.

Producers' Co-operative Distributing Society Ltd.

Are now paying a Bonus of 15% on all Commissions charged to regular clients of the Fruit & Vegetable Section for year ending Sept., 1938

Send Your Consignments

TO US

MELBOURNE & SYDNEY.

THE MARKET GROWER

OFFICIAL ORGAN OF VEGETABLE GROWERS' SOCIETY OF VICTORIA, THE KOONDROOK & BARNHAM TOMATO GROWERS ASSOCIATION AND THE SOUTH AUSTRALIAN FRUITGROWERS' AND MARKET GARDENERS' ASSOCIATION.

Vegetable Culture

EARLY SOWING of seeds for Winter and Spring is necessary; after transplanting, ample watering is needed so that growth can continue without check.

The danger of stunted growth in Autumn, of such things as Cauliflowers and Cabbages, is that the growth may start in Spring, when they are likely to run to seed. When planting out Cabbages and Cauliflowers, use dusting powders. These prevent the Cabbage Moth laying eggs in the hearts and ruining them later on.

Celery should get frequent and plentiful waterings to keep it growing. If allowed to suffer for want of water, it will be sure to run to seed, or become a host for the Green or Celery Fly.

For Marrows, Cucumbers and Melons, the beds must be kept well mulched and evenly watered. Pinch off the end of the runners.

These and French Beans must be protected from the Red Spider, by spraying plants with nicotine and soap.

In order to keep Tomatoes fruiting well, give them plenty of water. Apply water to the roots and avoid overhead watering. Apply liquid manure once a fortnight.

Sow Spinach for Winter use, the prickly kind being the best for this sowing. Sow also Turnips in well-prepared ground, and encourage rapid growth during dry weather. If at all stunted they are liable to become attacked with blight. The Early Horn Carrot may still be sown for drawing young. Remove seed stems from Rhubarb as they appear. Challenge Early Horn and Scarlet Nantes are good varieties of Carrots.

In the growing of Carrots, Parsnips and long-rooted Beet, it is very important that the ground should be thoroughly broken up and dug deep, otherwise the roots become forked.

If using stable manure, this must be placed at the bottom of the trench. For preference sow in ground that has been well manured for a previous crop. If stable manure be not available, use bone-dust, superphosphates, or market garden manure. As Parsnip seed is not noted for good germinating quality, it is desirable to sow the seed fairly thickly, in order to ensure a sufficiency of seedlings. With Turnips, the quality will be best when grown on moderately rich soil, as they are then grown more quickly. Do not, however, manure heavily, as it inclines the roots to coarseness and the tops to a rank growth.

The ground for Peas should not be very highly enriched with rank manure as when such is

the case there is a tendency in the plants to make an over-luxuriant growth of haulm. Soil that has been previously manured for other crops suits admirably.

If there is a space of three or four inches between the plants they have a better opportunity of coming to the fullest perfection, as they have room to grow strong.

Sow in rows two to three feet apart (the shorter space for the dwarf varieties), and the drills should be from three to four inches deep. Staking is advisable.

Planting Peas and Beans. When planting Peas and Beans in rows it is advisable to have them run north and south, so that each side may have an equal portion of sunshine, which is most necessary in the case of tall-growing kinds, such as Peas and Beans.

TOMATO IMPROVEMENT.

Valuable Experiments are Being Made in N.S.W.

ON the very interesting and important subject of Tomato improvement, the following notes are to hand from Mr. H. Wenholz, Director of Plant Breeding, N.S.W. Department of Agriculture:

For many years the Earliana Tomato has been considered by market and home gardeners as the best early maturing variety for early sowing. The variety now known as Australian Earliana, possessing characters which distinguish it readily from the American Earliana, is clearly superior to all other selections and strains of Earliana.

The chief characters sought in an early Tomato for the important city market are (1) early blossoming and fruit setting



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ting on the bottom flower clusters; (2) rapid growth and ripening of fruits; (3) good production of well colored, smooth red fruits, free from cracking and of satisfactory size; (4) resistance to Fusarium Wilt and, if possible, also to Spotted Wilt.

No variety meets all of these requirements, Australian Earliana having somewhat rough shaped and unevenly colored fruit, and being still rather too susceptible to Fusarium Wilt.

Ever since it was first introduced from the Cheshunt Tomato Research Station, England, the variety Potentate has been proved, by Mr. Shirlow, Plant Breeder at Hawkesbury Agricultural College, to be superior to all other early Tomatoes, chiefly on account of its heavy setting of fruit on the lower flower clusters, smooth red fruit of satisfactory size and good resistance to Fusarium Wilt, combined with its excellent yield. A Richmond (N.S.W.) grower who marketed a consignment of Potentate Tomatoes during the past season was informed by his Sydney agent that the fruit arrived in a better condition than that of any other variety from the district, including Break O'Day. There was no shrinkage of the Potentate Tomatoes in the cases which could be re-consigned to country markets without any repacking. At least one Sydney seedsman now lists Potentate in his catalogue, and he reports a very heavy demand for seed.

Mr. Shirlow has developed some selections of a cross between Potentate and Australian Earliana, which promise to be superior to Potentate in the quality of the fruit.

On account of the excellent qualities of the Italian variety, San Marzano, for pulping, it is now being extensively grown for the Tomato sauce trade. From the growers' standpoint, San Marzano is not very satisfactory, being deficient in yielding capacity as well as very susceptible to disease such as Bacterial Canker and Fusarium Wilt. Crossing with varieties resistant to these diseases is being undertaken by Mr. Shirlow to produce a variety which is acceptable to growers and manufacturers alike.

Control of Cabbage Moth

DURING THEIR EARLY STAGES of growth, Cabbages and Cauliflowers may be dusted with arsenate of lead for control of Cabbage moth, without danger of contaminating the heart or edible portions, states the N.S.W. Dept. of Agriculture.

The use of lead arsenate on these crops must, however, be discontinued when the plants commence to heart, or at least six weeks before cutting.

For the best results, the lead arsenate must be applied as a dust and not as a spray. Proprietary lines of lead arsenate dusts are available, or the material may be prepared on the farm by mixing equal parts (by weight) of lead arsenate powder and kaolin.

Where aphids as well as Cabbage moth have to be controlled on young Cabbage or Cauliflower plants, nicotine sulphate should be added to the arsenate of lead and the following formula may be used:

Lead arsenate	8 lb.
Kaolin	8 lb.
Nicotine sulphate	1 lb.

The method of mixing the dust is given below.

Derris Effective and Non-poisonous.

During the hearting period the use of lead arsenate must be discontinued and derris powder substituted. This dust may be used right up to the time of cutting, without danger to consumers. In many coastal areas, the best results in the control of pests of Cabbages and Cauliflowers are to be obtained by dusting throughout the whole period of growth of the crop with derris powder. For use the derris is mixed with either kaolin or talc in the following proportions:

Pure derris powder	1 lb.
Kaolin or talc	8 lb.

When applied at intervals of seven to ten days, derris controls the green aphid of Cabbages as well as the Cabbage moth. It does not, however, control the grey aphid, so that should the plants become severely infested with this species during the hearting stage, nicotine sulphate should be mixed with the dust, the proportions being as follow:

Derris powder	2 lb.
Nicotine sulphate	1 lb.
Kaolin or talc	14 lb.

To Mix the Dust.

The nicotine sulphate should be sprinkled into the dust, and the mixture then transferred to a suitable mixing machine. Such a machine can readily be made by fitting a barrel with an axle so as to allow the barrel to be rotated on a stand. An opening with a tight-fitted lid should be made in the side of the barrel and a few water-worm stones may be placed in the barrel to assist in the mixing of the dust. Vigorous rotation for four or five minutes will complete the mixing of the dust.

Market Notes and Prices

Sydney Market Notes

LIIGHT crops and continued dry weather have resulted in a general freedom from the fungoid diseases that usually cause wastage in stone fruits, but most fruit coming forward from New South Wales bears evidence of the dry weather experienced.

1939 Apples have been displaced by the new season product with the exception of a few Granny Smith and Democrat. Amongst the new season Apples, cooking types predominate, due to the eagerness of growers to market their fruit while Apples are comparatively scarce. This year, however, the application of the Apple and Pear Acquisition Scheme on March 1 will induce growers with early fruit to forward to market as soon as possible, and although supplies are much lighter than usual, due to seasonal conditions, there are indications that this is already being done. Carrington are practically finished and Granny Smith, Twenty Ounce and Gravenstein have been coming from both Queensland and N.S.W., Victoria also forwarding a few of the latter type. Some early Jonathans and McIntosh Red have just appeared and a few Williams Favorite are coming from the Orange district. Most of these early types have been grown in the Camden and Goulburn districts, the size in the majority of instances being small, while color is as yet not very pronounced.

The Pear season has opened favorably with supplies also much lighter than usual, Clapp's Favorite and Williams coming

from Victoria, with N.S.W. and S.A. also supplying a quantity of the Williams type. The demand for Williams by canners is likely to keep supplies on the Sydney market well within control, and satisfactory values should result.

Stone fruit supplies from Metropolitan sources are nearing the end of their season, Apricots having finished, while Plums are nearly finished. Peaches, however, are still arriving. The first recession in values, for a number of weeks, has only just occurred, this apparently being caused by an influx of Elberta and Blackburn types chiefly from the Hawkesbury districts where the size of the fruit is small as a result of the dry weather. For several weeks now, Peaches have been mostly selling at from 6/- to 9/-, but most arrivals probably have receded to from 3/- to 8/-, with special quality Blackburn and White Shanghai realising to 10/- half bush. Nectarines this year have been popular and extraordinary values have been received for well developed and well colored fruit. Recently odd cases were sold to 20/- and quite frequently sales were made to 14/- and 15/-, these prices being obtained for locally grown fruit.

The advance of the Plum season is indicated by the practical disappearance of Satsuma from Metropolitan sources, Angelina from the M.I.A. and Western districts taking their place. Victoria has forwarded several small consignments only.

A feature of the market this week has been the arrival of N.S.W. Grapes and a perceptible increase in the supply of Figs from Western districts. Queensland has been forwarding Grapes for several weeks, these being dark types, mostly of the Black Hamburg and Black Muscat kinds. The Queensland product mostly sold up to 12/-, while the recent arrivals of Black Muscat from Bulga and Metropolitan sources in this State are mostly at from 14/- to 18/-. Some very choice fruit from the Liverpool district realised to 15/- per quarter bushel case. Some of the N.S.W. Grapes indicate the dry weather that is being experienced.

Tropical fruits have experienced a wonderful season, Queensland this year having forwarded increased supplies of Mangoes, Papaws, and Pineapples, while the supply of Bananas has been equal to recent years. The price of this product apparently depends very largely upon the ability of the grower to market fruit which has developed some color.

Oranges continue to be popular, but coastal supplies are diminishing each day. Much of the coastal fruit during the last two weeks has been affected by Black Spot and large sizes generally receded in value. Some sales, however, are still being made to 20/- and 21/-, and the more plentiful M.I.A. product is generally preferred owing to the brightness of its color, and the fact that it is less likely to breakdown. Colored Lemons are in good demand.

L. T. PEARCE.

Market Representative, Fruit-growers' Federation of N.S.W.

SYDNEY MARKET REPORT FOR JANUARY 25, 1940.

With Review of Previous Week.

Apples: Extra Fancy and Fancy—Grav., Vic. 10/- to 12/-, Q'ld. 14/- to 18/-. N.S.W. 6/- to 16/-, few 20/- bushel; Granny Smith, N.S.W. and Q'ld., 8/- to 12/-; Jon. (Q'land. to 15/-), N.S.W., 8/- to 14/-, few 16/-; McIntosh Red, N.S.W., 12/- to 15/-, few 20/-; Twenty Ounce, N.S.W. and Q'ld., 6/- to 9/-; Williams Favorite, N.S.W., 6/- to 14/-, few to 18/-; others, 5/- to 12/-, Good and D. Grades lower.

Pears: China, N.S.W., 4/- to 6/- per bushel; Clapp's Favorite, Vic., 8/- to 11/-; William, N.S.W. 8/- to 12/-, Vic. 10/- to 13/-, S.A. 12/- to 14/-.

Apricots: N.S.W., inland 5/- to 7/-, special 8/-. Inferior and small 2/6 to 4/-. Bullocks Heart 4/- to 7/- per half bushel. Tas., 7/- to 9/-, few 10/- per half bushel.

Bananas: N.S.W. and Q'land., regulation graded, first quality fruit, 10/- to 18/-, few higher per tropical case; inferior lower.

CITRUS FRUITS.

Grapefruit: U.S.A., Calif. 37/6 per Calif. case; Palestine, 27/- to 32/6 per 1½ bushel case.

Lemons: N.S.W., local, colored, 9/- to 17/-, shed stored to 17/- bushel, plain grade 3/- to 8/-, inland 8/- to 16/-. Italian, 50/- per 1½ bushel case. Palestine, 35/- per 1½ bushel case.

Oranges: Valencias, N.S.W., local, plain, Special and Standard, 12/- to 15/-, few 21/- bushel; inland, 14/- to 21/- bushel; 2 bushel crates 16/- to 22/-, 2nd crop, 4/- to 9/-, few higher per bushel.

Figs: N.S.W., 4/- to 6/- quarter bushel.

Nectarines: N.S.W., inland, 6/- to 9/-, few to 13/- half bushel; Victorian, 14/- to 18/- bushel; Q'land., 7/- to 10/- half bushel.

Grapes: Q'land., Dark 9/- to 10/-, Black Muscat 11/- to 12/- half bushel; N.S.W., Black Muscat 13/- to 15/- half bushel; Black Hamburg, 11/- to 12/- per half bushel.

Peaches: N.S.W., local, 2/6 to 10/- half bushel; inland, 6/- to 8/- half bushel. Q'land., 6/- to 7/- half bushel. Vict., 12/- to 14/- bushel.

Plums: N.S.W., local, 4/- to 8/-, few to 9/- half bushel; inland, Angelina 7/- to 10/- half bushel. Vict., 13/- to 14/- bushel (Angelina).

Passionfruit: N.S.W., 4/- to 8/-, few 9/-; inferior from 2/6 half bushel.

Papaws: Q'land., 7/- to 11/-, few higher per tropical case.

Pineapples: Q'land., 6/- to 12/-, few higher per tropical case.

Tomatoes: N.S.W., 2/- to 4/-, few to 6/- half bushel. Q'land., 2/- to 5/- half bushel.

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QUEENSLAND.

Brisbane (20/1/40).—Messrs. Clark & Jesser report as follows: During the past month stone fruit has been in light supply and values have been high. Prices ruling at present are as follows:—Apples: Grav. 12/- to 14/-, G. Smiths 10/- to 11/-, Williams Favorites 8/- to 10/-; Pears: W.B.C., 9/- to 10/-; Oranges, 18/- to 20/-; Lemons, 20/- to 23/-; Apricots, 9/- to 10/-; Plums: Angelina's, 11/- to 12/-; other varieties 10/-; Peaches, 6/- to 7/-; Nectarines, 10/- to 12/-; Mangoes, 4/- to 5/- case; Papaws, 2/6 dump case; Tomatoes, 4/- to 5/- case.

NEW ZEALAND.

Dunedin (19/1/40).—Messrs. Reilly's Central Produce Mart Ltd. report as follows:—A fairly busy period has been experienced in the Fruit Markets during the week, with satisfactory supplies coming forward.

Supplies of stone fruit increased towards the week-end, but values generally are firmer for all lines. Considerable quantities are going forward from Central Otago to Northern markets, where good values are obtainable. Increased supplies of new season's Apples have been arriving, Gravensteins from Nelson, with Beauty of Bath and other varieties from Central Otago. This fruit is meeting with an excellent enquiry. Dessert Pears have a good demand. As from February 1 all Apples and Pears come under the control of the Internal Marketing Division.

Cherries are now practically finished for the season.

Smaller supplies of Tomatoes have been received, and the market is firmer. It is apparent that there will be a shortage of supplies prior to the outdoor fruit coming forward.

Small consignments of local Strawberries are still arriving, and netting good values. Raspberries, Loganberries, and Youngberries are in better supply, with good values being maintained. Black and Red Currants have firmed in price with a good enquiry.

Supplies of Jamaican Oranges are available with only a limited enquiry.

Supplies of Californian Lemons are ample for the present demand.

Bananas at present are unprocureable, a further shipment being expected in about ten days' time.

A small shipment of Pines arrived during the week, and met with a good enquiry.

Prices (per half case): Nelson Tomatoes, 6/- to 19/-; Peaches, 3/- to 6/-; Apricots, 3/6 to 6/-; Nectarines, 4/6 to 6/6; Plums, Dessert, 3/6 to 6/6; Cherry Plums, 3/- to 4/-; Pears, Jar-gonelle, 4/- to 5/6. Per Case: Lemons, Californians, 65/6; Oranges, Jamaicans, 22/- to 30/-; Jamaican Grapefruit, 14/6 to 25/6; Bananas, ripes, 25/-; Pines, 26/-; Apples, Gravensteins, 10/- to 16/-.

SOUTH AUSTRALIA.

Adelaide: Conditions on the South Australian Markets during January were a direct contrast to those prevailing during January, 1939, when, through abnormal weather conditions, most vegetables were very short of supply and prices were high.

Potatoes and Onions during January were over supplied, and prices were low, but Potatoes during the latter part of month had a tightening tendency and prices are expected to improve during February.

Beans and Peas early in January were selling at low prices, but later in the month supplies diminished, and prices showed a marked improvement.

Fruit prices remain more or less steady, but owing to the unusual season Cherries remained on the markets longer than usual; however, good prices were obtainable throughout.

Stone fruits, despite a fairly heavy glut, during the month

maintained an even price throughout.

Apples (new season) came on the markets in increasing quantities during the month, and at times a rather wide range of prices were quoted. At present supplies are ample for the demand prevailing.

Oranges and Lemons in short supply maintained high prices, but at present Lemons have a tendency to ease in price.

The following is a list of quotations ruling on the markets 31/1/40:—

Beans, French, 5/- doz. lbs.; Beetroot, 1/6 doz. lbs.; Cabbages, large 4/- doz., medium 3/- doz., small 2/- doz.; Carrots, 2/- doz. bchs.; Cucumbers, 1/- to 1/6 doz.; Lettuces, 1/-, 1/6 doz.; Onions, 3/- cwt.; Parsnips, 2/- doz. bchs.; Peas, 6/- bushel; Potatoes, 5/- cwt.; Rhubarb, 1/- doz. lbs.; Tomatoes, firsts 4/- 1/2 case, seconds 3/- 1/2 case; Trombones, 8/- cwt.; Turnips, 1/6 doz. bchs.; Swede, 2/6 doz. bchs.; Vegetable Marrow, 1/-, 2/- doz.

Apples, eaters 4/-, 6/- case, 8/-, 12/-.

cookers 3/-, 4/- case; Oranges, 12/-, 18/- case; Lemons, 14/-, 20/- case; Apricots, 5/- 1/2 case; Peaches, 5/- 1/2 case; Nectarines, 5/- 1/2 case; Currants, 5/- 1/2 case; Bananas, 19/-, 21/- crate.

VICTORIA.

Melbourne (31/1/40).—Wholesale Fruit Merchants' Association prices:—Per Case: Apples, eating, 8/-, 12/-; choice higher; cooking, 3/-, 5/-; choice higher; Apricots, 3/-, 6/-; choice higher; Bananas, 9/-, 16/- double case; few higher; Cucumbers, 3/-, 5/-; few higher; Grapefruit, 7/-, 15/-; selected higher; Lemons, 14/-, 20/-; selected higher; Valencias, 10/-, 20/-; selected higher; Passion-fruit, 8/-, 16/- half case; Peaches, 5/-, 8/-; choice higher; Papaws, 6/-, 10/-; Pineapples, 8/-, 12/-; Plums, 3/-, 5/- half case; few higher; Tomatoes, local, 3/-, 7/-; inferior lower; Pears, 5/-, 8/-; choice ripe higher; inferior lower; Black Currants, 5 1/2 d., 6 1/2 d.; Nectarines, 8/-, 12/-.



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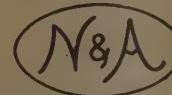
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Levy of Halfpenny a Case.

The levy on Apples and Pears exported was fixed at a half-penny a case under the Apple and Pear Export Charges Act.

The fixing of the levy has been made on the recommendation of the Australian Apple and Pear Board.

Wrapping of Granny Smiths.

Compulsory wrapping in oil paper of Granny Smith Apples for export is provided for in regulations gazetted in Canberra,

on January 11. It was explained that tests had disclosed that Granny Smith Apples were liable to be affected by a skin scald on arrival at overseas destinations unless they were wrapped in oil paper.

... : : : :
The Minister for Agriculture

in Tasmania (Mr. D'Alton) stated he had received advice to the effect that the Federal Department of Commerce and the Australian Apple and Pear Board had not considered any suggestion that there should be a change in the regulations regarding packing of fruit that might be exported overseas this season.

The Minister added, while nothing definite was known as regards possible exports, the Apple and Pear Board was making effort to secure as much shipping space as possible.



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M.I.A.

Fire at Leeton.

Fire caused damage estimated at £5,000 when it destroyed the premises of the Leeton Packing Company, Leeton, early in January. Machinery, cases, spraying oils were fuel to the flames, causing the fire to spread rapidly and eventually raze the building to the ground. £2,500 worth of plant and material was lost. The origin of the fire is unknown.

AUSTRALIA AND U.S.A.**Trade Developments and Tourist Traffic.**

In the annual report of the Australian Government Trade Commissioner in the U.S.A. (Mr. L. R. Macgregor) for the year 1938-1939. The Commissioner points out that three important aspects of the activities of his office are the making of a series of surveys of the market for Australia's principal exports; study of Customs Tariff and other barriers applicable to goods exported from Australia and with recommendations as to the direction in which the Commonwealth Government may best approach an alleviation of any adverse conditions with a view to stimulating or protecting Australia's export trade; and to take considered steps to publicize Australia in the interests of Australia's trade and the encouragement of tourist travel to Australia and generally in order to make Australia better known abroad.

PRODUCERS' DISTRIBUTING SOCIETY.**Record Turnover.**

The Producers' Co-operative Distributing Society Ltd., of Sydney, achieved the record turnover of £6,565,035, for the year ended September, 1939. This is an increase of £848,473, compared with last year, which was the previous highest.

An increase of £15,540 in earnings was more than offset by an increase of £37,313 in expenses, so that net profit fell to £25,792 from £47,655.

Dividend at a steady rate of 4 per cent. absorbs £8,810. Statutory transfer to reserve is £15,000, leaving £4,881 to be carried forward, against £2,898 brought forward.

Bonus rates to consignors, provided before arriving at the net profit, are lower. Rebate of 15 per cent. of commissions paid on local sales of butter on the official quota basis compares with 22½ per cent. last year, and rebate of 10 per cent.

The total bonus amount is £19,066.

APPLE GRADER FOR SALE.

The attention of orchardists is directed to an advertisement in this issue in which Messrs. Ramsay Treganowan Ltd., 469-75 Latrobe-street, Melbourne (telephone MU 6544), offer a slightly used, recent model Harvey Apple Grader for sale. We are advised that this grader has had very little use, only having handled about 15,000 cases. It was carefully stored after last season and the original varnish is as new. Offered at a greatly reduced price, the grader can be inspected at the above address.

STORES FOR THE NAVY.**Important Appointment in Sydney.**

Mr. Willis J. Williams, Superintendent of Markets to the Municipal Council of Sydney, has been appointed by the Department of the Navy as Supervisor of Food Transport for the duration of the war. The importance of this position can be judged by the fact that all foodstuffs for the troops will be supervised and inspected and arrangements made on the transports for the troops' mess. Besides this, there is another activity which will engage Mr. Williams, that of supplying provisions that may be required from time to time by the Royal Navy, and to see that such provisions are duly shipped.

Mr. Williams, who has had twenty-five years' service with the Sydney City Council, was at one time Chief Inspector of Export Foodstuffs in Victoria.

FRUIT SALES IN LONDON.

It is of interest to note what is happening in London in the fruit trade in war time.

A report dated November 23 stated that Apple arrivals were light—boxes of Virginian Winesaps realising 10/3 to 11/6; barrels of Albemarle sold at 26/- to 31/-.

In Pears, Californian Comice brought 14/6 to 15/9; W. Nelis, 14/- to 15/3; B. Hardy, 12/6 to 15/6; B. Bosc, 14/6 to 16/6; British Columbian Anjou, 14/3 to 16/-; Washington W.N., 13/6 to 15/3.

FRUIT PICKING LABOR.**Bureaux in Victoria.**

The Minister for Labor in Victoria (Mr. Mackrell) is in receipt of a report from the Officer in Charge of the Sustenance Branch recommending the establishment of bureaux in country centres to facilitate the movement of fruit picking labor.

The problem has been a thorny one for years for State officials, for grievances have come from all quarters—the workers, the growers and the general public. The report just completed aims at overcoming past mistakes by placing the matter on a properly organised basis.

BROWN SPOT OF PASSION VINE**(Continued from Page 8)**

they are from one quarter to half an inch in diameter or occasionally larger, and from one to several spots may occur on a single leaf.

After infection the leaves usually become paler, and fall very readily.

On the branches, dark brown lesions appear which gradually elongate to a length of one to several inches, and frequently during elongation they extend in width till the branch is completely encircled.

When this occurs the sap flow is obstructed, causing the death of all distal portions of the branch. The sudden wilting of fruits (Plates 2 and 3) on a recently cinctured branch, is an obvious symptom by which the disease can often be detected in vines which may otherwise appear quite healthy; in many cases the affected branch must be traced back several feet before the causal lesion is discovered.

It is also noticeable that the leaves on such a branch remain fresh and green for some time after wilting of the fruit commences.

Brown Spot may also attack fruit producing brownish spots which as they enlarge gradually become depressed and more or less circular in outline. Fruit is frequently infected on the cheek but it may also be attacked at the stalk end, or at any other point.

It will be seen therefore that the productivity of the vines is seriously lowered by the disease, for not only may fruit be attacked directly, but through causing defoliation and dieback of branches, the vigor of the vine is so depleted that the crop is considerably reduced.

When vines are badly attacked by Brown Spot, almost total defoliation may occur, and tangled masses of dead stems are noticed. In such cases the effect may be so severe that the vines ultimately die.

Cause of the Disease.

Brown Spot is caused by the fungus *Alternaria passiflorae*, and it is spread by means of fungal seeds or spores which are produced abundantly from the surface of any diseased parts; spore production may

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Highest Prices.

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Wholesale Fruit Merchant and Growers' Agent.

A Trial Solicited. Returns Speak for Themselves. Shipping No. 19.
Established 1888. Registered Telegraphic Address: "Barr, Brisbane."

W. Arkell & Sons Estab. 1892
GROWERS' AGENTS.

Shipping No. 12

Bankers: National Bank of Australasia, George St., Brisbane.

MURRAY BROS
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HEDLEY GEEVES PTY. LIMITED

Telegraphic Address:
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(Hedley Geeves, Managing Director)

Registered Shipping No. 6.

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BRISBANE

SELECTED AGENTS FOR:

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Harcourt Fruit Supply Co. Ltd.

Victorian Central Citrus Assn. Ltd.

Phones: Office B 6218. Residence J 3445.

Established 1911.

Tasmania: State Fruit Advisory Board.

New South Wales: Griffith Producers' Co-op. Co. Ltd.

Batlow Packing House Co-op. Soc. Ltd.

BROWN SPOT OF PASSION VINE

(Continued from Page 29)

continue for long periods after the affected parts are killed.

The spores are carried by wind, or splashed by rain, and by these means some will eventually lodge on other healthy vine parts, where in the presence of moisture and with sufficient temperature they germinate and cause new infections.

Factors Affecting the Spread of the Disease.

Pruning.

Of all factors affecting the disease, pruning is by far the most important. Where pruning is systematically carried out as an annual procedure the occurrence of the disease is noticeably reduced, even in the absence of any other control measure. When the vines remain unpruned, they gradually develop into an impenetrable mass of foliage and runners and in this condition any diseased parts remain in close contact with still healthy parts; furthermore, light and air are excluded, and in consequence the tangled growth remains wet for long periods after rain, thus providing ideal conditions for the spread of the disease.

For this reason it is readily observed on most properties where pruning has been neglected, that the youngest vines with relatively sparse foliage are comparatively healthy, whereas in older vines with more abundant growth, the disease is more widespread.

Judicious pruning stimulates the vine to healthy vigorous growth and greatly increases its productive life; it also enables all diseased parts to be removed and burned during the process, thus destroying the sources of infection.

Furthermore, air and light can penetrate to all parts of the pruned vine, which allows the foliage to dry quicker after rain, thus preventing the germination of the fungal spores.

The time of pruning will vary

with local conditions, and with the kind of crop which is desired, either Summer, intermediate or Winter. In the Keysbrook and North Dandalup districts, it is the custom of the leading growers to prune early in March, after the main Summer crop is harvested. By so doing a late Winter and intermediate crop is also obtained which varies in yield with the season and with the character of the previous Summer crop.

When a heavy Winter crop is desired, pruning is delayed until the Summer crop is about half grown.

Climatic Conditions.

Brown Spot is favored by warm moist weather, and so in normal seasons the disease is most serious during the Spring and early Summer months.

Although as yet there has been little opportunity to study accurately the seasonal incidence of the disease, observations indicate that Brown Spot, though present during Winter, does not usually become very active at this stage as the temperatures are low; from August to December, especially with high rainfall it may gradually increase in seriousness and spread very rapidly.

Unless unseasonable Summer rains subsequently occur, the weather then becomes hot and dry, and in consequence the spread of the disease is limited until the Autumn rains commence.

Spraying.

Where systematic pruning is carried out annually, applications of a suitable fungicidal spray will effectively control this disease. It should be remembered, however, that the main purpose of the spray is to cover still healthy parts in order to prevent the disease from spreading, and that unless the vines are kept well pruned this object cannot be achieved and spraying is therefore ineffective.

Of all the common fungicides, home-made Bordeaux Mixture, plus a suitable spreader, has given the best control, and where the disease is present the cost of spraying will be repaid many times over.

Care should be taken to apply the spray on a fine day when it will dry quickly otherwise severe burning may be caused.

Control.

(1) Train the Passion Vine systematically from the commencement of growth, keeping the main runners well tied to their respective trellis wires, in order subsequently to facilitate pruning.

(2) Prune the vines well back at least once a year at a time determined according to whether a Summer, intermediate or Winter crop is desired.

The more freely light and air can penetrate through the vines within limits, the less serious will the disease be. All diseased lesions should be cut out during this operation, and all prunings should be burned as quickly as possible.

(3) Spray the vines after pruning with home-made Bordeaux Mixture 4:4:40 strength + a suitable spreader.

Repeat the spraying at monthly intervals during the Spring and early Summer months, and thereafter at two monthly intervals if required by the season. When mature fruits are on the vine, ammoniacal copper carbonate may be substituted for the Bordeaux Mixture in order to avoid discoloration.

(4) Periodically examine all vines to detect any newly-formed lesions and destroy them before they become a source of infection to other shoots or vines.

(5) Artificial waterings, if any, should be reduced to a minimum, and in home gardens overhead watering should be discouraged — "Jour. Agric., W. Aust."

New Zealand News and Notes

Government's Purchase of Apple and Pear Crop.

The plans of the N.Z. Government in the purchase and marketing of the 1940 crop of Apples and Pears in New Zealand is expected to begin in February.

Applications have been called for additional fruit inspectors, and also for several positions associated with the distribution and marketing of Apples and Pears.

The responsibility for marketing the fruit in the Dominion is to rest with the Internal Division of the Marketing Department, while exports overseas are to be under the control of the Export Division.

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The overall average price of 5/- a case is deemed by many growers to be insufficient.

There was a big meeting at Te Kauwhata in mid-January when Hon. D. Wilson, Leader of the Legislative Council, attended to hear the views of the growers.

AUCKLAND GROWERS' CO-OPERATING.

£10,000 For Advertising.

At a large and representative meeting of fruitgrowers in the Auckland district held at Huapai in mid-January. Willingness was expressed to co-operate with the Government's Marketing Scheme.

The Hon. D. Wilson said the Government was not anxious to take over the marketing of fruit but was desirous of helping any section of producers handicapped by war conditions.

The Government's Marketing Scheme, continued Mr. Wilson, was largely an experiment, but hope was held out that it would be so successful that the growers would ask for it to be continued as a national scheme under the growers' control. In order to bring the large quantity of fruit, approximately 3,000,000 cases, into consumption, the Government had allocated £10,000 for advertising purposes. It was also hoped to arrange for the manufacture of by-products.

It was hoped to induce people to buy fruit in larger quantities, as there was inadequate cool storage in New Zealand. To this end it was intended to use railway stations and dairy factories as agents for marketing.

Other speakers were Mr. W. Benzie, Assembly Officer; Mr. W. T. Goodwin, Assistant Director of Horticulture; Mr. J. H. Thorpe, Officer in Charge of Standardisation; and Mr. A. Osborne, Manager of the Fruit-growers' Federation.

SPECIAL NOTICE TO FRUITGROWERS

In response to numerous requests from growers for information as to who are members of the

Wholesale Fruit Merchants' Association of Victoria

the following list is given. All are members of the above Association, and are registered firms carrying on business in the

WHOLESALE FRUIT MARKET, MELBOURNE.

STAND NUMBERS ARE AS INDICATED IN PARENTHESES.

- T. STOTT & SON PTY. LTD. (26-36).
- H. L. E. LOVETT & CO. (23).
- A. E. PITTS (14).
- J. DAVIS PTY. LTD. (8).
- W. S. TONG (31).
- SILK BROS. PTY. LTD. (24-25).
- J. G. MUMFORD (35).
- GOLDEN VALLEY FRUIT CO. PTY. LTD. (15).
- J. W. ROSS (13).
- H. M. WADE & CO. (21).
- DAVID SMITH PTY. LTD. (3).
- SILBERT SHARP & DAVIES PTY. LTD. (17).
- WATKINS FRUIT COMPANY PTY. LTD (5)

- G. WOOLF & SONS (29-30).
- R. CORNISH & SONS (5).
- J. HYMAN & SON (51).
- HERBERT WILSON PTY. LTD. (10).
- FRANK BOOTH & SONS PTY. LTD. (16).
- GEO. LISTER PTY. LTD. (12).
- TIM YOUNG & CO. PTY. LTD. (18).
- F. W. VEAR PTY. LTD. (28).
- YEE HOP LOONG & CO. (32).
- H. LOUEY PANG & CO. PTY. LTD. (4).
- WING YOUNG & CO. (38).
- D. MENTIPLAY & CO. PTY. LTD. (27).
- PRICE & KING PTY. LTD. (2).
- REGAN & KENNY (Successors to Wm. Sweeney). (33).

Office : 21 Wholesale Fruit Market,
Queen Street, Melbourne. Phone: F 4866.

Motor Cars, Trucks, Tractors

CARE NEEDED AT CORNERS.

Importance of Good Tyres.

OBSERVATION of how badly some motorists drive round corners leads to the conclusion that many drivers have no knowledge whatever that the only thing which enables them to go round a corner is the adhesion of the tyres to the road surface, and that the faster they make a turn, the less that adhesion becomes. They do not realise that the friction between the tread of the tyre and the road surface is to their car while negotiating a corner, just the same as a piece of string is to a sling swished round in a circle. Once the string breaks, the stone in the sling flies off.

Thanks to the very efficient design of most of the modern tyre treads, many drivers escape trouble when cornering too fast, but even then, accidents do happen at times through attempting to corner at too high a speed. The danger is greatly intensified if one indulges in this practice in a car or truck shod with smooth worn tyres, and realisation that safety when cornering at speed depends solely on tyre adhesion would prevent most of the accidents attributable to this fault.

OVERHEATED ENGINE.

If the engine continues to overheat after all other causes have been eliminated, try changing the pitch of fan blades so that more air is drawn through the radiator.

GREASING THE CAR.

A FEW hints on greasing the car will be found helpful.

Jack up the front wheels when greasing the king pins. This allows the grease to flow under the thrust bearing which normally is heavily loaded, and so does not receive the copious lubrication which it needs.

Work the steering from lock to lock to distribute the grease evenly. If difficulty be experienced in forcing grease into running-gear bearings, such as the spring shackle-pins, the services of some person handy should be secured to rock the car while pressure is being applied with the grease-gun. This will usually enable the grease to be forced through. Should this fail, however, the power-greasing equipment at an up-to-date service station will usually develop sufficient pressure to break down the obstruction without need for dismantling the bearing to clean out the oil-ways. Some types of oil-nipples occasionally fail through the ball-valve sticking. Screw out the nipple and free the bail by pressing with a nail or similar point. Then wash out any dirt with petrol or kerosene.

CORRECT TYRE PRESSURE.

Motorists should at all times give special attention to the maintenance of correct pressures in their tyres. It is good practice to check the pressures at the start of driving every few days.

TAPE FOR TEMPORARY REPAIRS.

Mending a Broken Petrol Pipe.

A roll of friction tape is an accession, costing only a few pence, which should find a place in every tool box.

One of its dozens of uses is the binding up of a broken fuel or oil pipe. Preferably finished off with a wrapping of wire or string such a repair may look rough, but is thoroughly reliable.

If pipes give frequent trouble through breakage, it is proof that they are subjected to severe bending, or vibration stresses. Flexible fuel and oil pipes are available for replacement of solid ones in such circumstances.

An alternative is to cut the pipe and join it up again with a short length of petrol-proof rubber hose. A short length of inflator hose is usually satisfactory. This allows adequate flexibility, and often lasts for two or three years.

CORRECT BRAKING.

Safety Hint.

Leaving braking till the last minute, when you know in advance that a stop will be necessary, will contribute materially to your running costs, as well as detract from safety because of the constant stressing of brakes, states the R.A.C.V. Fuel and tyre consumption are kept high from this habit, and the cost of brake adjustments and re-lining is much increased.

FORDSON TRACTORS.

A British Product.

As part of Australia's contribution to Britain's war strength, it is the duty of Australians to conserve British foreign credits so that Britain may be better able to purchase all the materials she needs at this time. We can play our part by buying only British products, says an advertisement for British Fordson tractors in the 1940 issue of "Fruit World Annual."

In addition to showing loyalty, the buyer of a British Fordson shows good judgment, for this tractor is quoted at a low price, has long life, is economical in use, has ample power and gives just the sort of service that orchardists require.

The distributors for Victoria are Malcolm Moore Ltd., of 601 Little Collins-street, Melbourne, who will be pleased to give full particulars of this amazing machine. Many users of the Fordson testify to its satisfaction in operation, its adaptability for all classes of farm work and its general workmanship.

Clean off the Carbon.

One of the most frequent causes of leaky valves in an automobile engine are carbon deposits on the valve seats.

:: :: ::

A Joy Ride.

"How is that young man with whom you fell in love at first sight?"

"Oh, he was a fraud. It was his chief's car he was in."

Do You Keep Poultry?

if so—

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LEADING BREEDS (illustrated in
colours), etc.

Published by the

HORTICULTURAL PRESS PTY. LTD.

Box 1944, G.P.O.

Melbourne

Poultry Notes

THE VALUE OF MEAT.

One of the best foods for making hens lay is lean meat. When the egg supply fails, stop all other feeds and give meat meal or liver. If the hens are fat, give one ounce each of meat meal, allowing no other feed for about two weeks. Green bone, providing it contains a large proportion of lean meat and that all fat portions have been removed is very satisfactory. One reason why hens stop laying is that they require a change, and meat supplies this need.

CULLING AFTER TWO YEARS.

After two season's laying, it is usual to dispose of hens before they begin to moult, as sometimes it is five months before they start laying again, and this is too long to warrant keeping them another season.

The only exceptions are the few late moulters which have continued laying right up till April. These late moulters

second season hens are a better proposition than the early moulted first season hens.

"ROUP" DISEASE.

Where fowls suffer from a disease commonly known as "roup," the complaint should be tackled in the early stages. Use a teaspoonful of salt to a pint of water to flush the head and mouth.

Use salt water and then three drops of 5 per cent. strength Argyrole in each eye, twice daily. This will often cut an attack quite short.

The best line of defence is to have well ventilated, but not draughty houses for the fowls, ample roost room, no overcrowding on the perch or on the ground, freedom from vermin, and good feeding from the very first.

The best resistance is through good breeding and sound management.

Green Manuring

Sow Cover Crops in Early Autumn

ATTENTION is needed now in preparing the land and ordering seed for cover crops.

Blue lupin and purple vetch can be recommended for N.S.W. coastal orchards (states the N.S.W. Dept. of Agriculture).

Grey field peas will give satisfaction in certain seasons, but are somewhat prone to disease, which results in reduced bulk of greenstuff.

Tick beans are generally satisfactory inland where irrigation is practised. This crop requires adequate supplies of moisture.

The use of a cereal such as rye, barley or wheat with vetches or field peas has much to recommend it. By supporting the legumes clear of the ground,

much more bulk of green matter is obtained as there is less of the plant in contact with the moist soil and, therefore, there is less loss from disease attack.

The quantities of seed required for planting in citrus orchards are as follows:—Grey field peas, 1 to $1\frac{1}{2}$ bushels per acre; purple vetch, 20 to 25 lb. per acre; blue lupins, 1 to $1\frac{1}{2}$ bushels per acre; mustard, 8 to 10 lb. per acre.

In planting mixtures the following rates of seeding are suggested:—

(Grey field peas $\frac{3}{4}$ bus.
(Barley 1 bus.

(Purple vetch 15 lbs.
(Wheat or rye 1 bus.

Brown mustard will be found useful by the grower who, for any reason, has been unable to sow before the middle of March. Mustard grows vigorously when sown as late as early April and can be expected to produce a satisfactory bulk of green matter by July. The legumes are to be preferred for general planting and mustard should only be used in emergency.

The fertilizer requirements

of the crop will vary according to the soil and situation. Superphosphate will be found beneficial to all legumes and should be generally used at rates from 1 cwt. to $1\frac{1}{2}$ cwt. per acre. In all but the richer soils the addition of a nitrogenous fertilizer is necessary to ensure adequate growth. Sulphate of ammonia, nitrate of soda and blood and bone supply nitrogen and may be used with the superphosphate.

West Australia

At a meeting of the Donnybrook (W.A.) Fruitgrowers in mid-January, complaints were made regarding Fruit Fly infested Apricots and Oranges coming into the district. It was hoped that inspection should prevent this and the funds of the levy of 2/6 per acre would provide for the needed inspection.

It was suggested that a large sign should be erected on the main road at Harvey, notifying the travelling public that it is illegal to bring fruit south of that point.

The delegate to the Fruit Organisation Board (Mr. N. A. G. Brockman) was requested to ascertain the position regarding the requirement that fruit for the Near Eastern markets should be cool stored for 17 days prior to shipment from the State.

Crop Assessments.

The Chairman (Mr. Brockman) stated that the assessing of crops was proceeding satisfactorily. He had gone through the estimates of some 300 orchards in this district with the Superintendent of Horticulture (Mr. H. Powell) and in only very few instances did they consider there was over-estimation. In many cases growers had underestimated their crops.

TRADE WITH CHINA.

The report of the Australian Government Commissioner in China (Mr. V. G. Bowden) for 1938-39 is to hand from the Department of Commerce. The report deals exhaustively with the Japanese occupation of China and with Japanese economic activities.

The trade figures for Hong Kong show minor losses in fresh and dried fruits, butter, dried milk, etc. Present trade prospects are uncertain, but taking the long view Australia should be able to supply goods of various kinds, which under war conditions may no longer be readily obtainable from Europe.

CALENDARS ACKNOWLEDGED.

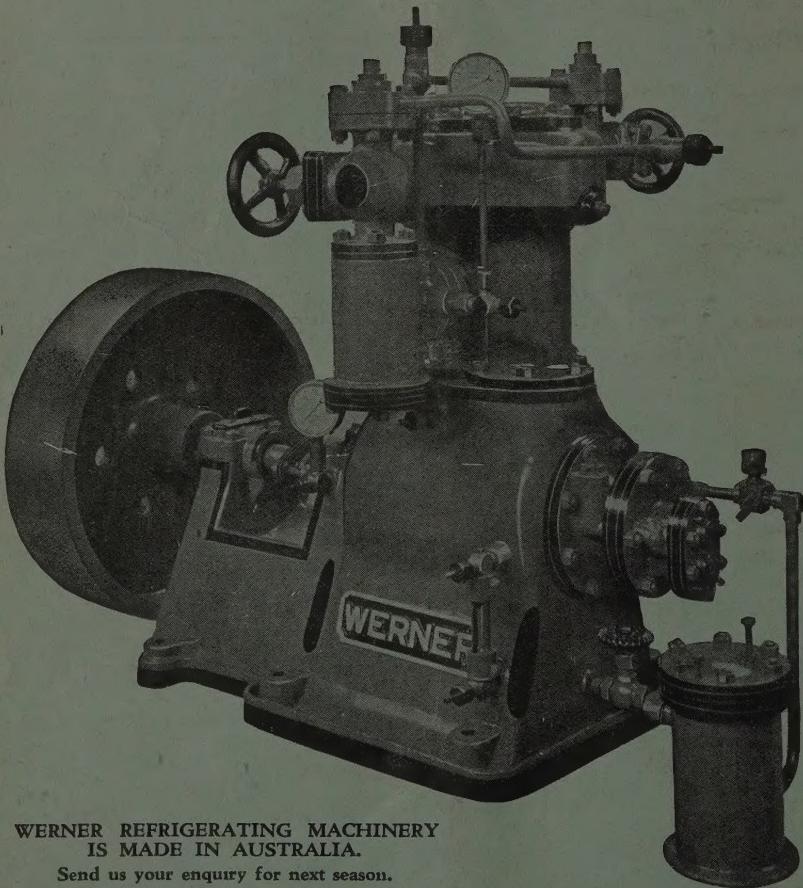
The Editor acknowledges with many thanks receipt of an attractive calendar for 1940 from Messrs. Reilly's Central Produce Mart Ltd., Moray-place, Dunedin, New Zealand. The title of the picture on this calendar is "Where Time has brought Peace and Contentment," and the scene depicts a shepherd bringing home the sheep, with old world cottages in the background.

A charming calendar is also to hand from Messrs. Turners and Growers Ltd., fruit brokers, of Auckland, New Zealand, the colored illustration showing a plate of luscious fruit with the wording "Health the Greatest Treasure."

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